dreambox

DM800 HD se

User Manual

Digital satellite receiver for free and encrypted Digital Video Broadcasting (DVB) with optional digital recording capability.

HDTV

HDMI-Interface
DVB-S2 Tuner plugable

Ethernet-Port 10/100 Mbit
internal SATA harddisk connector
eSATA-interface

colored OLED display
Linux OS

DVB Digital Video Broadcasting
Stab - USALS UNIVERSAL SATELLITES AUTOMATIC LOCATION SYSTEM
DOLBY DIGITAL Streaming

dreambox discover more.

Foreword

Dear customer,
Congratulations on your new Dreambox DM800 HD se.

This manual should assist you to connect your dreambox, learning the basic operation and getting to know the additional multiple features.

Please note that the range of functions expands continiously by new software updates. If you updated the software of your dreambox or found some failure in the manual, please check if a new version is available in the download section of our website www.dreambox.de.

We hope that you take much pleasure in your new dreambox DM800 HD se.

Your Dream-Multimedia Team

The Dreambox DM800 HD se got the CE-Sign and fulfills all necessary EU-Norms.

DiSEqC™ is a tradename of EUTELSAT.

Dolby and the double-D symbol are trademarks of Dolby Laboratories.

HDMI®, the HDMI-Logo and "High Definition Multimedia Interface" are trademarks or registered trademarks of HDMI Licensing LLC.

Changes and printing errors reserved.

Contents

1 Before initial operation of the receiver **1**

1.1 Safety instructions . . . 1
1.2 Packaging contents . . . 3
1.3 Views . . . 4
1.3.1 Front view . . . 4
1.3.2 Rear view . . . 5
1.4 Remote control . . . 6

2 Start-up **9**

2.1 Connecting . . . 9
2.1.1 Satellite Dish (DVB-S/S2) . . . 9
2.1.2 A/V Receiver . . . 10
2.1.3 Television . . . 12
2.1.4 Network . . . 13
2.2 Turning the device on . . . 14
2.3 Start wizard . . . 14

3 Basic operation **16**

3.1 Turning your Dreambox on and off . . . 16
3.2 Service selection . . . 17
3.3 Changing channel using the service list . . . 17
3.4 Controlling the volume . . . 18
3.5 Changing the audio track . . . 18
3.6 Sub Services . . . 18
3.7 TV/Radio switching . . . 18
3.8 Subtitles . . . 19
3.9 Infobar . . . 20
3.10 Electronic Program Guide - EPG . . . 21
3.11 Teletext (Videotext) . . . 25
3.12 Sleep timer . . . 27

4 Edit the channellist **28**

4.1 Adding a bouquet . . . 28
4.2 Add a service to favorites . . . 29
4.3 Adding multiple services to a bouquet . . . 29
4.4 Remove a service from favorites . . . 30
4.5 Moving a service to favorites . . . 30
4.6 Adding a marker to favorites . . . 30

4.7 Parental control . . . 31

5 Hard disk operation **33**
5.1 Installation-Guide . . . 33
5.2 Management . . . 37
5.2.1 Initialization . . . 38
5.3 Recording . . . 38
5.3.1 Instant recording . . . 38
5.3.2 Stop recording . . . 39
5.3.3 Recording by timer . . . 39
5.3.4 Timeshift . . . 41
5.4 Watch a recording (Playback) . . . 42
5.5 Setting a marker (Bookmarks) . . . 43
5.6 Delete a recording . . . 43
5.7 Movielist options . . . 44

6 Setup **45**
6.1 Language . . . 45
6.2 Customize . . . 45
6.2.1 Simple Mode . . . 45
6.2.2 Intermediate mode: . . . 46
6.3 Timezone . . . 46
6.4 A/V Settings . . . 46
6.5 OLED-Display . . . 48
6.6 Network . . . 49
6.7 Skin . . . 50
6.8 Factory reset . . . 51

7 Service searching **52**
7.1 DVB-S2 Tuner-Configuration . . . 52
7.1.1 Single satellite – direct connection . . . 52
7.1.2 Two satellites via Toneburst A/B . . . 53
7.1.3 Two satellites via DiSEqC A/B . . . 54
7.1.4 Four satellites via DiSEqC A/B/C/D . . . 55
7.1.5 Stab Positioner using USALS . . . 56
7.1.6 Stab Positioner without USALS . . . 57
7.2 DVB-C Tuner configuration . . . 58
7.3 DVB-T Tuner-Configuration . . . 59
7.4 Automatic scan . . . 60
7.5 Manual scan . . . 63

8 Systeminformation **64**
8.1 Service . . . 64
8.2 About (Hard- and Software) . . . 65

9 Updating the software **66**
9.1 Backing up your settings . . . 66
9.2 Restoring your settings . . . 66
9.3 Updating a new software . . . 67
9.3.1 using the DreamUP program . . . 67
9.3.2 With browser . . . 70

10 Modem **72**
10.1 Connecting . . . 72
10.2 Establishing a connection . . . 72

11 Troubleshooting **74**

12 TV-Mode setup **75**

13 Technical data **76**

14 Features **80**

15 Contact & Support Information **81**

16 Copyright notes **83**
16.1 GNU GPL (General Public License) . . . 84

Chapter 1

Before initial operation of the receiver

1.1 Safety instructions

Please read the safety instructions completely and carefully, before using the Dreambox. The Manufacturer takes no responsibility for damages as a result of incorrect handling of the Dreambox.

- Allow enough space around the Dreambox for sufficient ventilation.
- Do not cover the top of the Dreambox and allow enough space to other devices. The louvers of the devices must be free at all times to allow sufficient heat transfer from inside the device.
- Never put vases or any other liquid filled containers on top of the device. Do not expose the device to dripping or splashing liquids.
- Do not place open flame sources, such as lit candles, on top of the device.
- The device may only be operated in moderate climate.
- Do not remove the cover. Risk of electric shock. If it is necessary to open the device please contact a trained professional.

- Do not put any metal things into the slots or ventilation openings.
- The installation of a hard disk /Tuner is only allowed by skilled personal or your local dealer.

Modifications and changes to the Dreambox lead to loss of warranty if not performed and documented by skilled personal. We recommend the installation of a hard disk by your local dealer. Unskilled installation of a hard disk leads to loss of warranty.

Shut down

- In case your Dreambox is in use for a longer period of time disconnect the power plug from the power outlet.
- During thunder storm the unit should also be physically disconnected from the power outlet.

Additional safety instructions

- (Dis-)Connecting to a LNB:
  Turn the Dreambox off before you connect or disconnect a cable coming from or going to a LNB.
- Connecting to a TV:
  Before connecting or disconnecting your Dreambox to/from a TV please turn it off.
- In case you notice any damage to the power cord or power plug immediately disconnect the device from the power outlet.
- In case the device was exposed to humidity immediately disconnect the device from the power outlet.
- In case you notice any serious damage to the outer shell of the device immediately disconnect the device from the power outlet.
- Do not expose the Dreambox to direct sunlight, lightning or rain.
- Grounding:
  The LNB cable must be grounded. The grounding system must meet SABS 061 requirements.
- Cleaning:
  Disconnect the mains power cord before cleaning the cover. Use a slightly damp cloth without cleaning agents.
- Connect the Dreambox only to suitable sockets. Do not allow overloads to occur.
- Please be careful that the batteries of your remote control are not exposed to heat, since they might explode.

Disposal instructions

The packaging of the Dreambox only consists of reusable materials. Please recycle if possible.

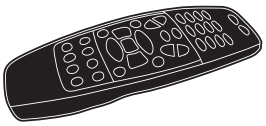
This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Please note that empty batteries and electric waste is not to be put into the regular garbage.

1.2 Packaging contents

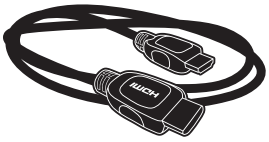
Please check the completeness of the box's contents.

Dreambox DM800 HD se

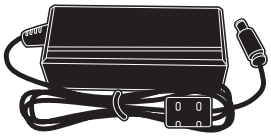


Remote Control

2 Batteries
(1,5V Mignon / AA / LR6)

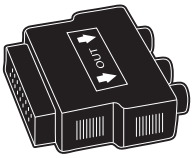


HDMI-Cable



Power supply

Power cord

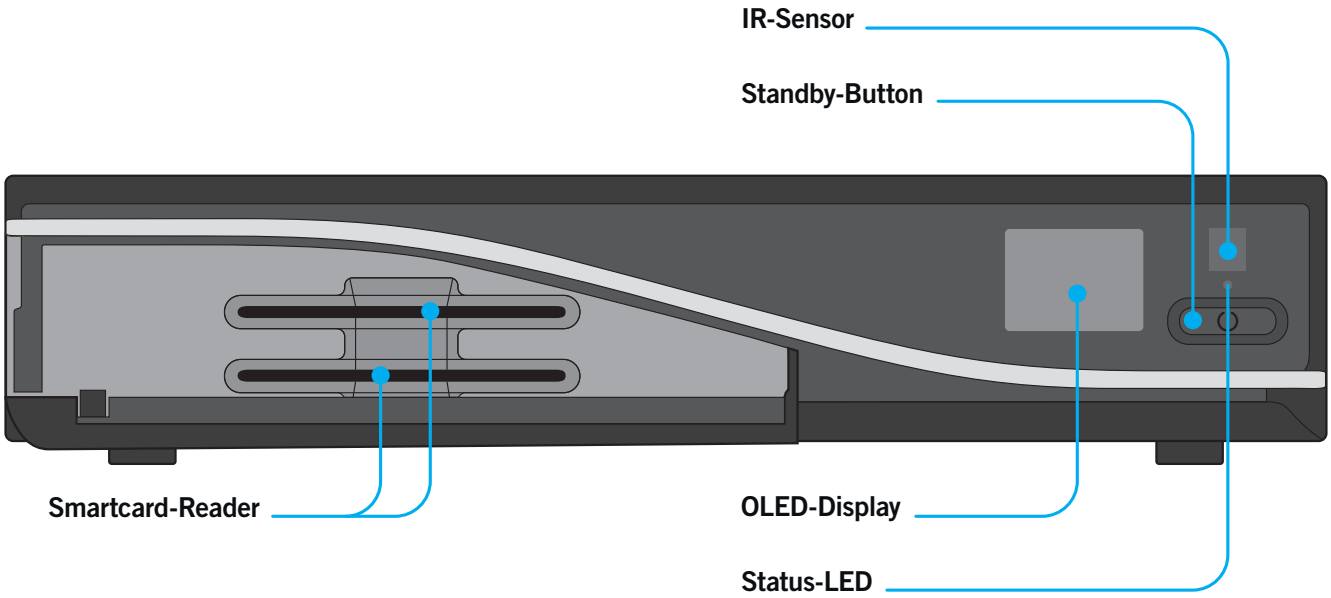


Scart to Video/Audio-Adapter

Quickguide

1.3 Views

1.3.1 Front view



Smartcard-Reader Insert your Dreamcrypt™ Smartcard with the golden chip facing down and forward into one of the two Smartcard reader slots. Dreamcrypt™ is a registered trademark of Dream-Multimedia.

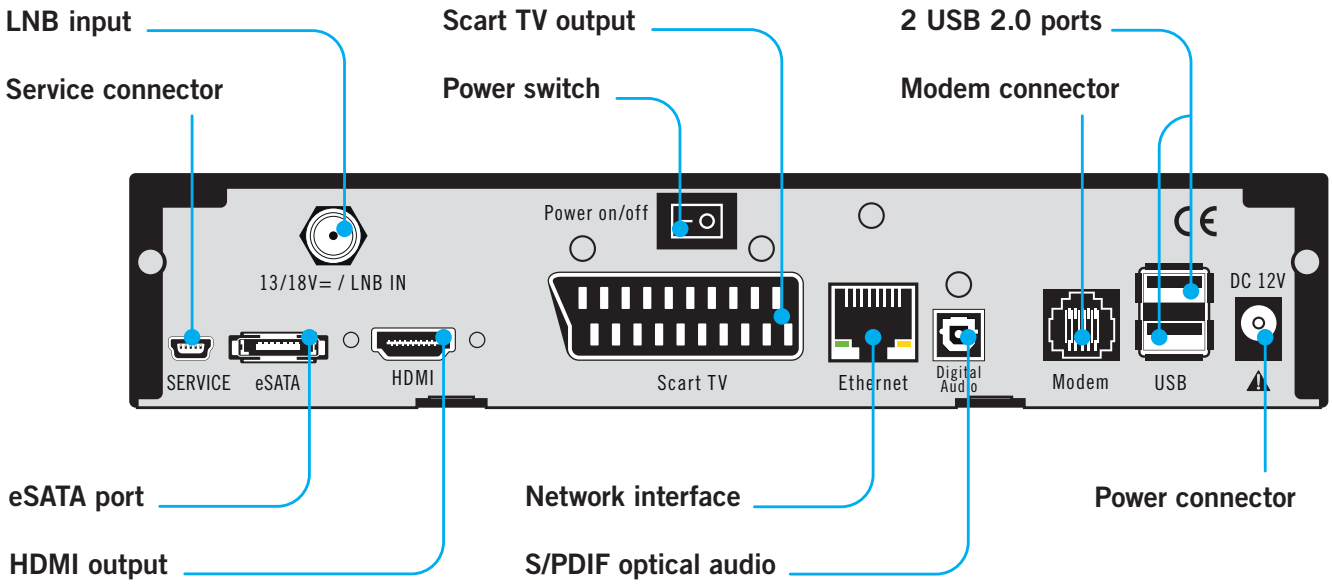
OLED-Display The OLED-Display shows all major information.

IR-Sensor The remote control sensor receives the infrared signals of the Dream Remote Control.

Standby-Button The Standby-Button switches your Dreambox on and off.

Status-LED The Status-LED indicates the Standby-Status of your Dreambox.

1.3.2 Rear view



LNB input Connect the coaxial cable from your LNB here.

Service connector The Service port is used to update the operating system. Please connect a mini-usb-to-usb-cable here.

eSATA connector You can connect an external SATA Hard disk.

HDMI output You can connect a TV to the HDMI out of your Dreambox if your TV has the right input.

Power switch The main power switch shuts off power from your Dreambox.
!!! IMPORTANT !!! Before opening the device, always pull the power plug!

Scart TV output Connect your TV, projector or beamer to your Dreambox using a Scart cable.

Network interface The Communication Port is an Ethernet port. It is used to communicate with your Dreambox via HTTP, FTP, NFS, Telnet, SSH and Samba to access your recorded movies, to upload channel lists, etc. This port is also used to update the operating system of your Dreambox. Please use a regular patch cable to connect your Dreambox to your LAN.

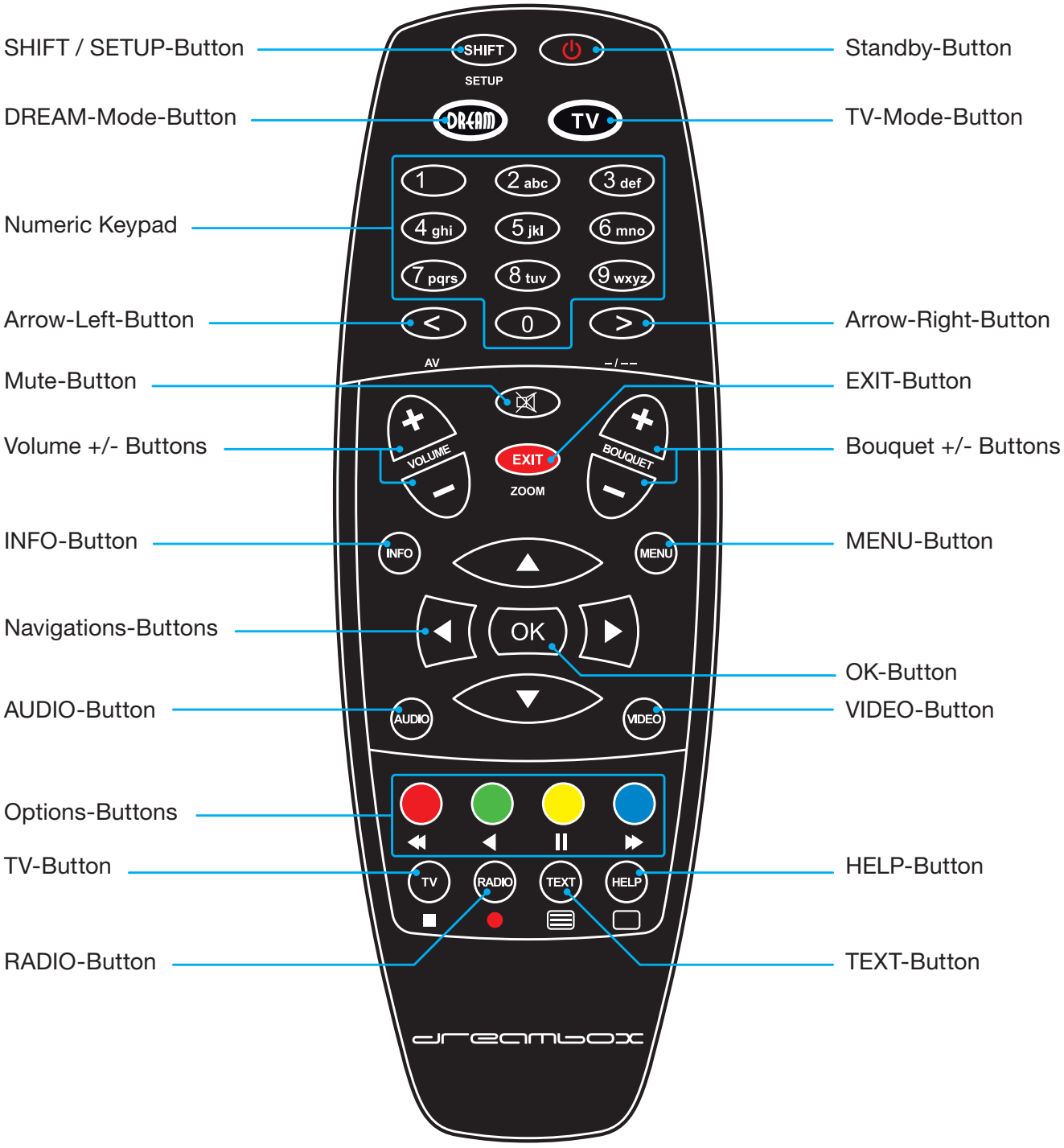
S/PDIF optical audio You can connect your Dreambox with an optical (Toslink) cable to your HiFi-Amplifier or DSP. The AC3 signal is also available at this port in case the selected channel transmits Dolby Digital signals.

Modem connector You can optionally connect your Dreambox to your ISP via the Modem Socket using a phone line.

2 x USB 2.0 port The USB 2.0 Port is designed for devices that support the USB 2.0 standard. The amount of supported USB devices depends on the installed image (Software) and is still under development.

Power supply connector Plug the power cable of the power supply that came with your Dreambox into power outlet. Connect your power supply to your Dreambox. You must not connect the power plug of the power supply to anything other than a socket that supplies 230V/50Hz.

1.4 Remote control



SHIFT-Setup-Button The **SHIFT/ SETUP-Button** is used to preprogram the remote control to operate a TV. (see *Chapter 12 TV-Mode setup* on page 75)

Standby-Button The **Standby-Button** switches your Dreambox on and off. (see *Chapter 3.1 Turning your Dreambox on and off* on page 16)

DREAM-Mode-Button The **DREAM-Mode-Button** switches your remote control into Dreambox control mode. It will shortly light up once your press the button.

TV-Mode-Button The TV-Mode-Button switches your remote control into TV control mode to control your preprogrammed TV. It will shortly light up once your press the button. (see *Chapter 12 TV-Mode setup* on page 75)

Numeric-Keypad Enter a service number to directly access the option by using the **Numeric Keypad**. The service numbers are on the left side of the service list. The **Numeric Keypad** can also be used to enter the teletext page number when you are in TV-Control-Mode and if your TV is teletext capable. The TV station has to submit teletext information; otherwise this feature cannot be used.

Arrow-Left- and Arrow-Right-Button The **Arrow-Left** and **Arrow-Right-Button** enable you to jump back and forth between the last 20 channels you have watched. If you have selected a sub service (see *Chapter 3.6 Sub Services* on page 18) you can use these buttons to switch to the next sub service. Additionally these buttons can be used to delete characters during text input.

Mute-Button Pressing the **MUTE-Button** mutes the Volume. A crossed speaker symbol will appear on the TV screen. Pressing it again or pressing one of the **Volume +/- Buttons** brings back the audio. The **Mute-Button** deletes a character during text input.

EXIT-Button You can leave all menus and service lists by pressing the EXIT-Button.

Volume +/- Buttons The **Volume +/- Buttons** control the volume of the audio. Pressing + will make turn it up and pressing - will turn it down.

Bouquet +/- Buttons Pressing the **Bouquet +/- Buttons** will jump back and forth between the bouquets.

INFO-Button If no OSD menu is visible on the screen and you are in TV or RADIO-Mode, pressing the **INFO-Button** will reveal the EPG information of the chose channel if it is available.

MENU-Button If you are in TV- or RADIO-Mode, pressing this button will bring up the OSD main menu. The OSD main menu has the following options:

You can switch to the needed option by pressing the **Navigation-Buttons (▲▼)**. If you are in the service list, pressing the **MENU-Button** brings up the service menu. The shown options may vary depending on the service list you selected.

Navigation-Buttons In general the menus are controlled using the **Navigation-Buttons** on your remote control. To get into a submenu you have to press the **OK-Button**.

OK-Button By pressing the **OK-Button** you confirm a selection in the menu or service list navigation. If no OSD menu is present on your screen, the infobar is shown once you press the **OK-Button**.

AUDIO-Button Pressing the **AUDIO-Button** gives an overview of the provided audio tracks.

VIDEO-Button Pressing the **VIDEO-Button** shows the list of recordings.

Options-Buttons All possible options are shown by the four colored dots/blocks **(red, green, yellow, blue)** and can be activated by the **Options-Buttons**. Depending on the menu you currently are in the options will change and will be named differently. These buttons are multi-assigned. They are also used for controlling the Playback-mode.

TV-Button Pressing the **TV-Button** activates the TV-Mode. This button is also used for *"STOP"* in Playback-mode. You can see the black square below the button.

RADIO-Button Pressing the **RADIO-Button** activates the RADIO-Mode.

TEXT-Button The **TEXT-Button** activates the Teletext.

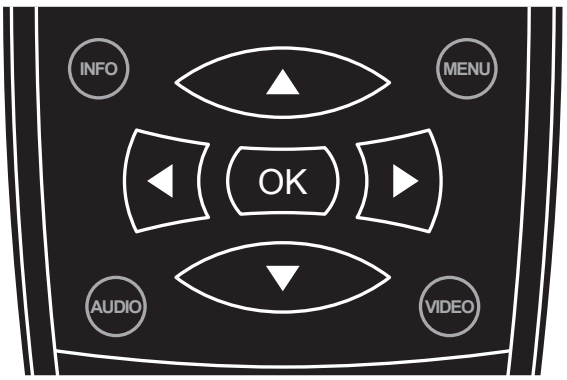
HELP-Button Pressing the **HELP-Button** shows the help menu.

Important notes about operation

All functions of the Dreambox can be controlled via OSD-Menu (On-Screen-Display). This makes the handling of the Dreambox very easy for you. All options are indicated by four colored dots or beams **(red, green, yellow, blue)** in the OSD-Menu and can be started with the **Option-Buttons** on the Remote Control.

Depending on the chosen Menu, these options do vary.

The **Options-Buttons** of your remote control have multiple functions. You will notice control symbols below the four colored **Options-Buttons**, the **TV-** and the **RADIO-Button**. In **PVR-Mode** these buttons are used to control the digital recording according to their symbols.



In general the menus are controlled using the **Navigation-Buttons (▲▼◄►)**on your remote control.

To get into a submenu you have to press the **OK-Button**.

All Menus and Service lists are closed with the **EXIT-Button**.

Chapter 2

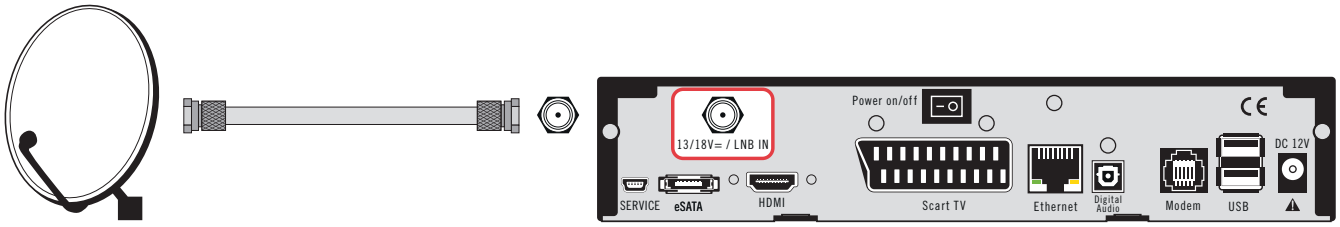
Start-up

2.1 Connecting

Before using the Dreambox, please read the safety instructions under *Chapter 1.1 Safety instructions* on page 1.
In the following is described how to connect the dreambox to a Satellite-dish, an a/v receiver, a tv-device and a network.

2.1.1 Satellite Dish (DVB-S/S2)

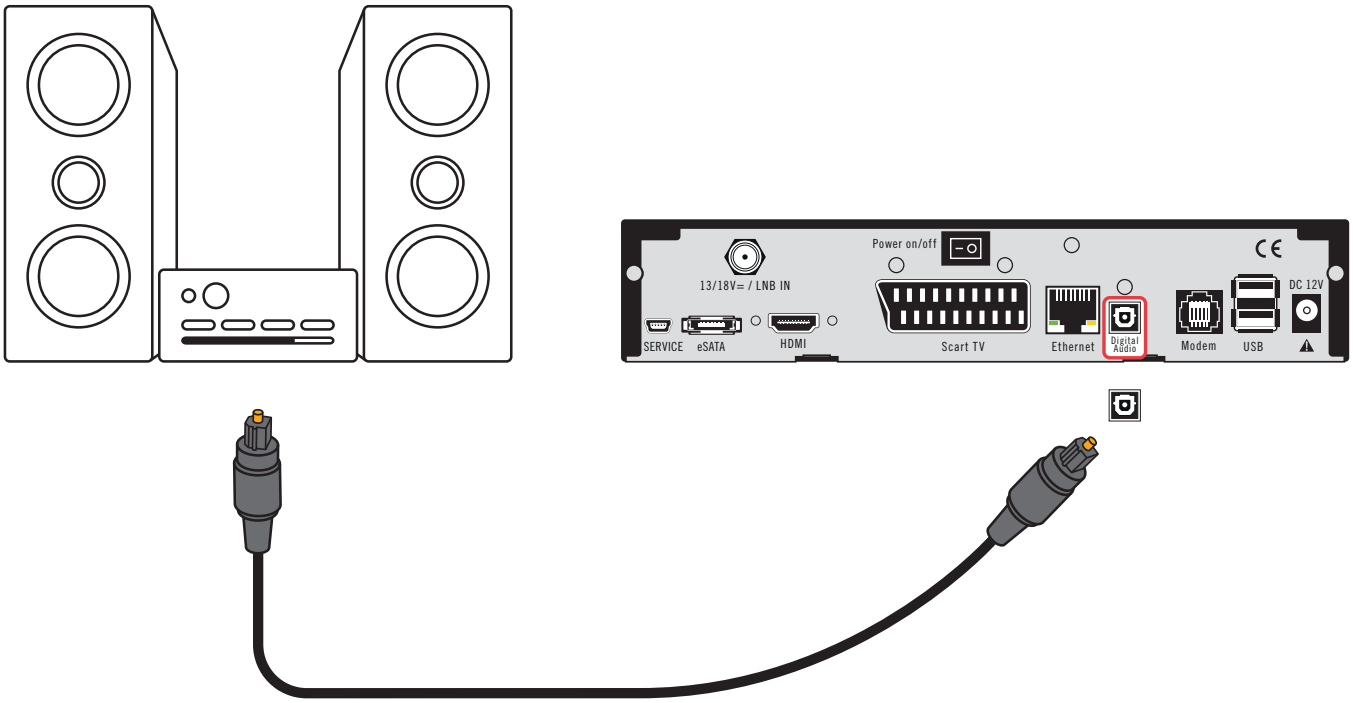
Connect the (LNB) with a suitable coax cable to the LNB-Input of your Dreambox. Detailed information can be found under *Chapter 1.3.2 Rear view* on page 5.



2.1.2 A/V Receiver

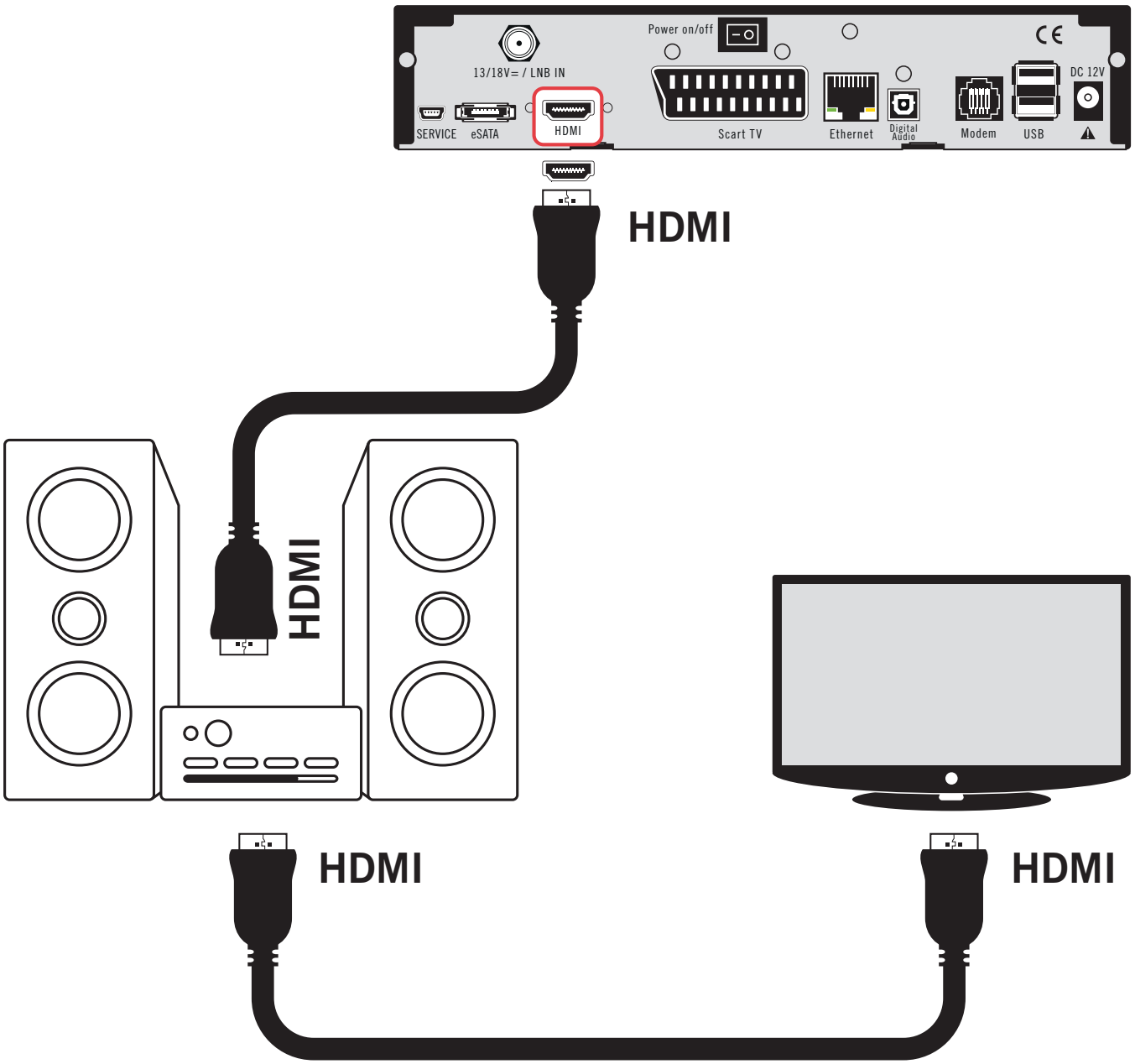
Connection via optical fiber cable

If your a/v receiver (amplifier) has a suitable optcial S/PDIF Input, connect the connection jack **Digital Audio** at the Dreambox with an optical fiber cable (toslink) with the optcial S/PDIF Input of your amplifier.



Connection via HDMI cable

Use an hdmi-cable to connect the hdmi-out of your dreambox to an hdmi-input of the a/v receiver. After that take a second hdmi-cable for connecting the hdmi-out of your a/v receiver to the hdmi-input of the tv-device.

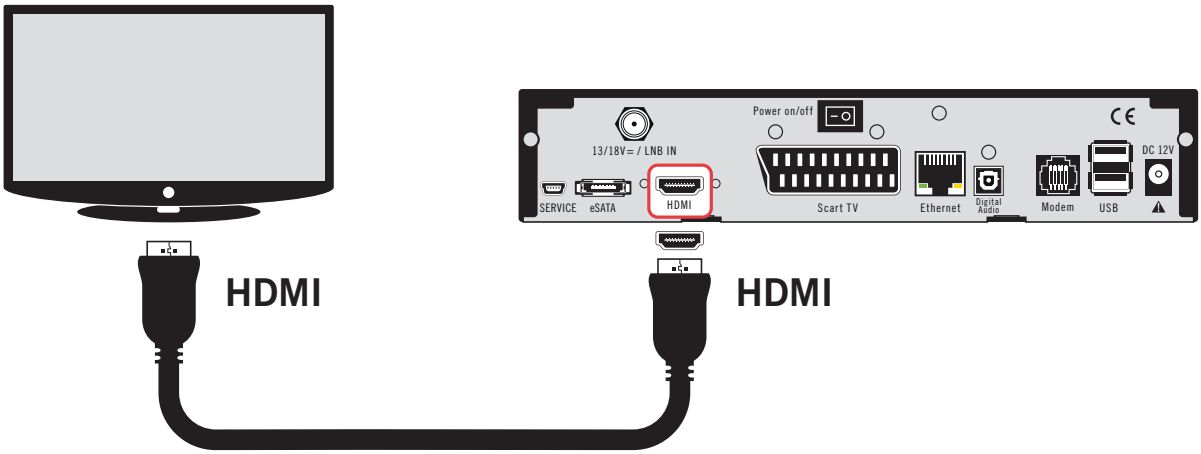


2.1.3 Television

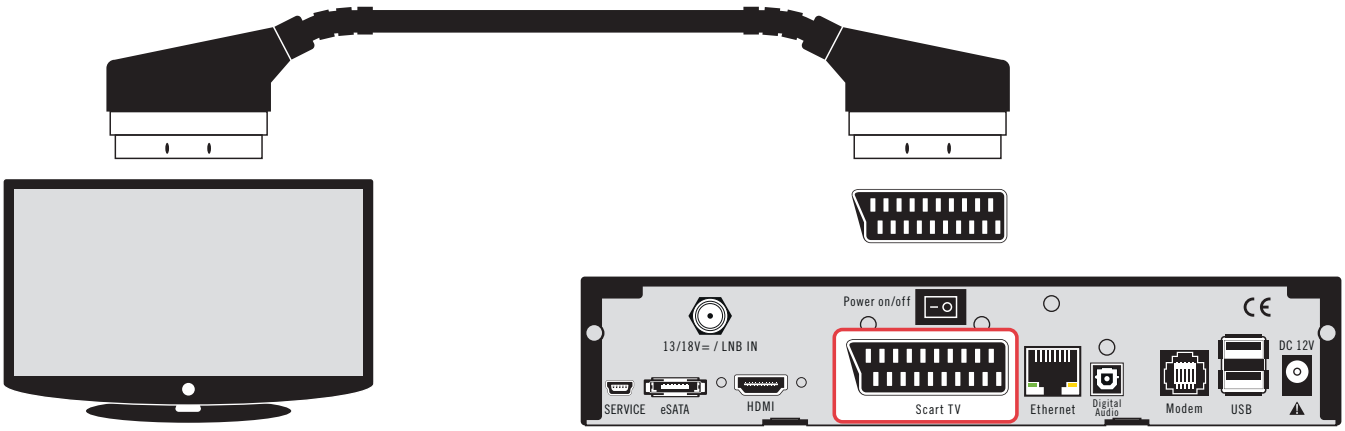
HDMI

Connect the dreambox with the hdmi or scart-cable mit dem TV-input of your television.

At least use the hdmi-interface for getting the best picture quality (through digital transmission). You can use the supplied HDMI cable for connecting the dreambox with the hdmi-input of your television.

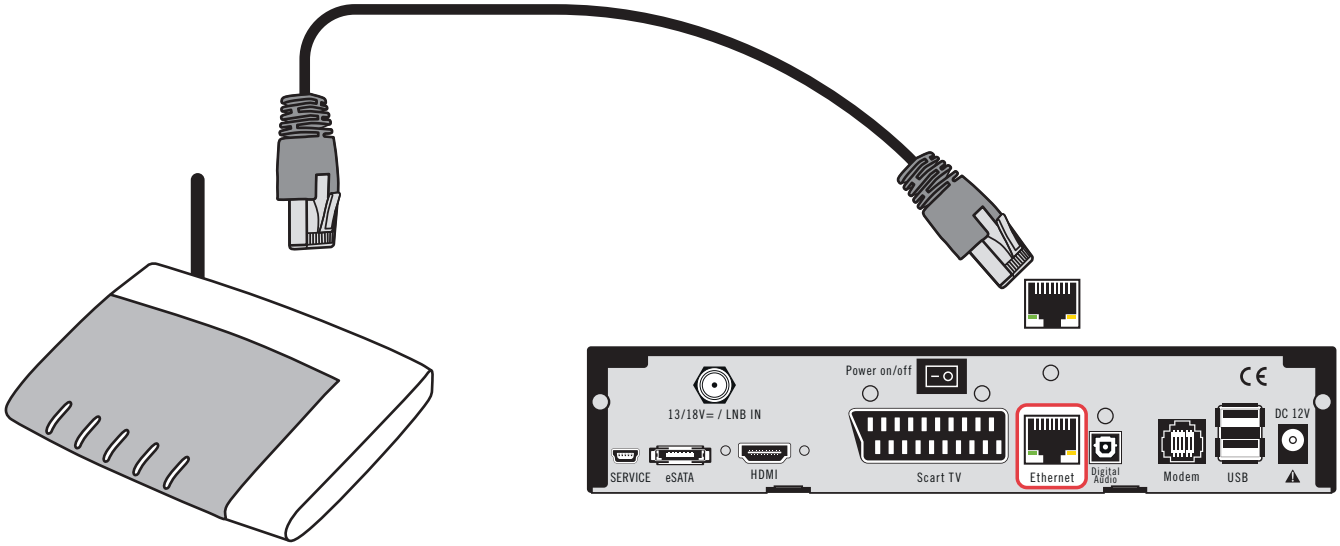


Scart



2.1.4 Network

Connection via network cable



2.2 Turning the device on

1. Place the batteries inside the battery compartment of the remote control keeping in mind the right polarity.
2. Plug in the power cable into the supplied power supply and connect it to the Dreambox. The power plug has to be plugged into a 110V/60Hz or 230V/50Hz power socket.
3. Now turn on your dreambox.

If you are using a switchable power socket please shutdown your Dreambox into deep standby before switching off the power socket. Detailed information can be found under *Chapter 3.1 Turning your Dreambox on and off* on page 16.

Please note that the factory setting for the video format is CVBS (FBAS).

2.3 Start wizard

If you switch on your Dreambox for the first time, you will see the setup wizard. The setup wizard will guide you through the first time installation. Follow the instructions on the screen and use the **Navigation-Buttons (▲▼◄►)** and the **OK-Button**. With the **red Options-Button** you can choose the desired language.

Auswahl des Videoeingangs
Bitte drücken Sie OK, wenn Sie diese Seite auf Ihrem Fernseher sehen können (oder wählen Sie einen anderen Eingang aus).
Der nächste Videoeingang wird automatisch nach 10 Sekunden getestet.
Deutsch
HDMI
Scart
YPbPr
DREAM

Video output selection

You will be shown different video output modes for roughly 10 seconds, after you have connected and switched on your Dreambox. Once you see a clear picture on your TV screen press the **OK-Button** to select it. If you prefer a different output than the selected one you can use the **Navigation-Buttons (▲▼)** and the **OK-Button** to select it.

Language selection

With the **Navigation-Buttons (▲▼)** choose your desired langugage and confirm with the **OK-Button**.

Tuner

Detailed information about the tuner setup can be found in *chapter 7.1 DVB-S2 Tuner-Configuration* on page 52.

Default services list/Service scan

Depending on your tuner configuration in the previous step, you might be offered to install default services lists. Otherwise you will be asked to perform a service scan. Detailed information about the service scan can be found in *Chapter 7.4 Automatic scan* on page 60.

Parental Control

Parental control makes it possible to lock selected channels. Detailed information can be found under *Chapter 4.7 Parental control* on page 31.

Network

The network wizard will assist you with the network setup of your Dreambox. Detailed information can be found under *Chapter 6.6 Network* on page 49.

Chapter 3

Basic operation

3.1 Turning your Dreambox on and off

Your Dreambox has a standby mode and a so-called deep-standby mode. Both functions differ in their power consumption and the time which is needed until the box has booted.

- Standby about 1 Second (higher power consumption)
- Deep-Standby about 1-2 Minutes (less power consumption)

Standby

To put your Dreambox into Standby-Mode either press the **Standby-Button** on your remote control or directly on your Dreambox. In this mode the OLEd only shows the current time.

Deep-Standby

For putting your Dreambox into Deep-Standby-Mode, there are 3 options:

1. Holding down the **Standby-Button** on your remote control for three seconds.
2. Press the **MENU-Button**, with the **Navigation-Buttons** (▲▼) choose the option *"Standby / Restart"* and press the **OK-Button**. With the **Navigation-Buttons** (▲▼) choose the option *"Deep-Standby"* and press the **OK-Button**.
3. Alternatively you can push down the **Standby-Button** on your Dreambox for 5 seconds. If no OSD Menu is visible on the screen this will also put your reambox into Deep-Standby-Mode. (If the OSD Menu is still open press the **EXIT-Button**).

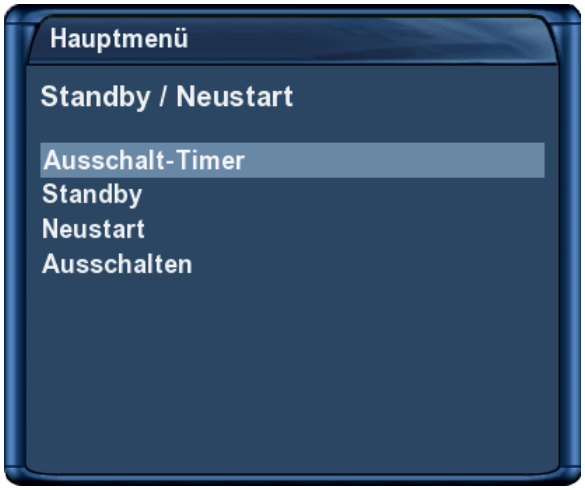
All your settings will be saved now and your Dreambox goes into Deep-Standby-Mode afterwards (saves energy!). In this mode the OLED-Display doesn't display anything.

Sleep-timer Put your Dreambox into Standby after a duration of time that can be chosen freely. (See *Chapter 3.12 Sleep timer* on page 27)

Standby Puts your Dreambox into Standby mode.

Restart Your Dreambox will be rebooted.

Deep Standby Puts your Dreambox into Deep-Standby-Mode.



This is the *Standby / Restart*-Menu.

With the **Navigation-Buttons** (▲▼) choose the desired option and press the **OK-Button**.

3.2 Service selection

Pressing the **Navigation-Buttons** (◄►) on your Dreambox remote control will take you to the previous or next service.

Pressing the **0** on the Numeric-Keypad will enable you to skip back and forth between the two most recently watched services. This feature is quite useful during commercial breaks since it enables you to watch another channel and quickly check if your movies is back on.

Using the **Navigation-Buttons** (◄►) you can switch to the 20 last viewed services.

3.3 Changing channel using the service list

Pressing the **Navigation-Buttons** (▲▼) activates the service list.

With the **Navigation-Buttons** (▲▼) choose the desired service and press the **OK-Button**.

3.4 Controlling the volume

The **Volume +/- Buttons** control the volume of the audio. Pressing + will make turn it up and pressing **-** will turn it down.

Pressing the **MUTE-Button** mutes the volume. A crossed speaker symbol will appear on the screen.

3.5 Changing the audio track

Pressing the **AUDIO-Button** in TV or Radio Mode.

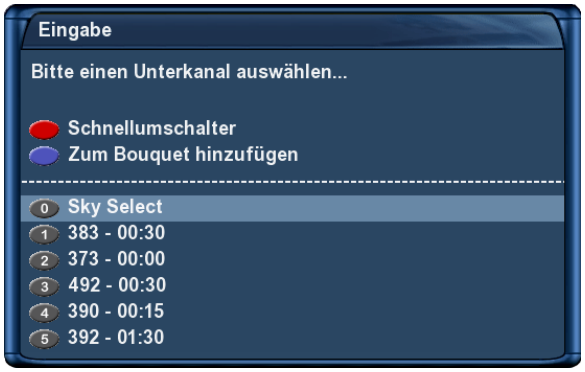
Use the **Navigation-Buttons** (▲▼) to move to desired audio track. Press the **OK-Button** to select.

The contents of this menu will vary from service to service.

AC3-Downmix: Press the **red Options-Button** to toggle *"AC3-Downmix"* (See *Chapter 6.4 A/V Settings* on page 46) on and off .

3.6 Sub Services

The green dot on the left side of *"Sub Services"* in the Infobar appears if the selected station transmits sub services.



Pressing the **green Options-Button** in TV or Radio mode will reveal the "sub services" *menu.* With the **Navigation-Buttons** (▲▼) choose one of the sub services, then press the **OK-Button** to select.

You can use the **Arrow-Left-Right-Button** for switching to the next sub service.

3.7 TV/Radio switching

Pressing the **RADIO-Button** activates the RADIO-Mode. By pressing the **TV- or EXITButton** you can quit the RADIO-Mode.

3.8 Subtitles

Follow this steps:

1. In TV- or Radio Mode press the **AUDIO-Button**.
2. By pressing the **yellow Options-Button** a list with the available subtitles will show up.
3. With the **Navigation-Buttons** (▲▼) select a desired subtitle and press the **OK-Button** to activate.

The screenshot on the left shows you an example of how a subtitle looks.

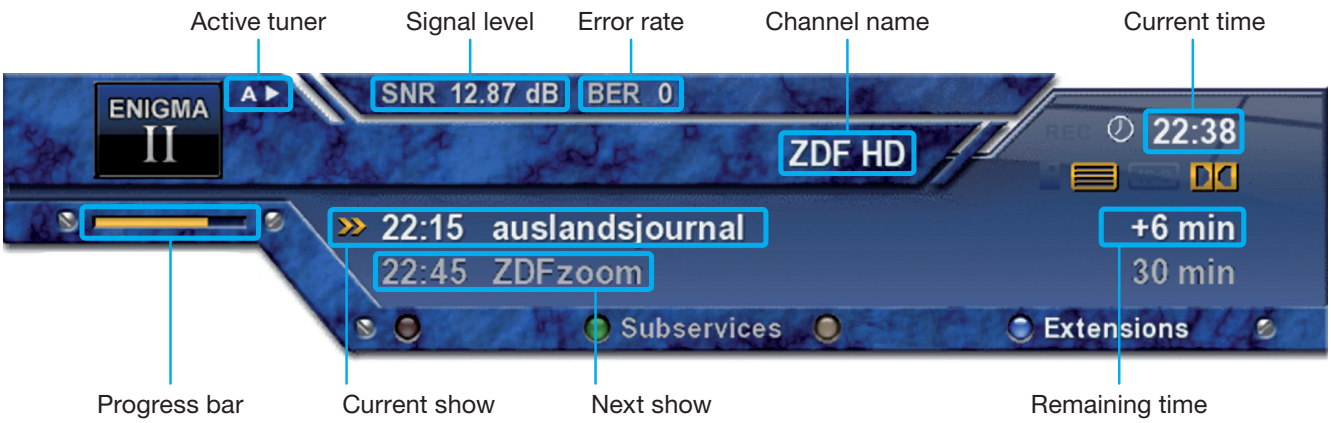
Note: Keep in mind that not every station offers subtitles. If no subtitles are available, the subtitle list will stay empty.

To deactivate subtitles follow this steps:

1. In TV- or Radio Mode press the **AUDIO-Button**.
2. By pressing the **yellow Options-Button** a list with the available subtitles will show up.
3. With the **Navigation-Buttons** (▲▼) select the activated subtitle and press the **OK-Button** to deactivate.

3.9 Infobar

The Infobar appears when switching a channel and shows all necessary Information about the selected service. By pressing the **OK-Button** you can open the Infobar if needed!



Is highlighted yellow as soon as a show is broadcasted encrypted.

Is highlighted yellow as soon as a show is broadcasted in Dolby Digital.

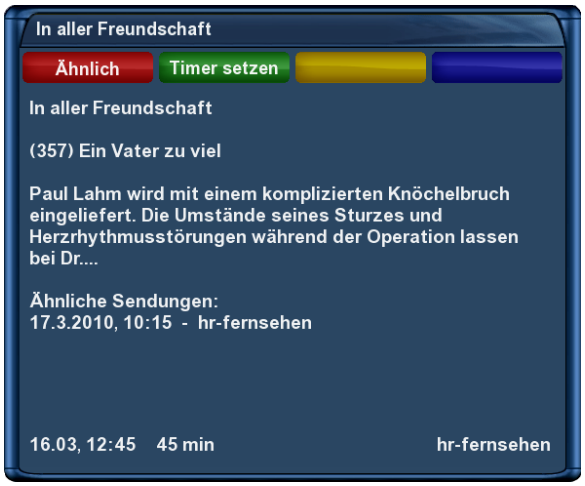
Is highlighted yellow as soon as a show is broadcasted in 16:9 aspect ratio.

Is highlighted yellow as soon as a station transmits Teletext information.

Lights up during the recording process.

3.10 Electronic Program Guide - EPG

The Electronic Program Guide (EPG) shows information regarding the current tv service (similar to a TV guide).


In aller Freundschaft
Ähnlich
Timer setzen
In aller Freundschaft
(357) Ein Vater zu viel
Paul Lahm wird mit einem komplizierten Knöchelbruch eingeliefert. Die Umstände seines Sturzes und Herzrhythmusstörungen während der Operation lassen bei Dr....
Ähnliche Sendungen:
17.3.2010, 10:15 - hr-fernsehen
16.03, 12:45 45 min
hr-fernsehen

By pressing the **INFO-Button** in TV-Mode you are supplied with detailed information about the current show and by pressing the **Navigationbutton (►)** afterwards about the next show.

Pressing the **yellow Options-Button** activates the *"Channel-EPG"* (see *Chapter 3.10 Single-EPG* on page 22) and pressing the **blue Options-Button** activates the *"Multi-EPG"* (see Chapter 3.10 auf Seite 23).

The Dreambox automatically searches for similar broadcasts in the background. If one or more similar broadcasts are found the label *"Similar"* will appear in the red window.

Pressing the **red Options-Button** opens a listing of similar broadcasts.

By pressing the **green Options-Button** you can set a timer for this rerun.

For additional information about recording by timer please see *Chapter 5.3.3 Recording by timer* on page 39.

Single-EPG

In this view you are supplied with detailed information about the currently selected channel's programming.

Follow this steps:

1. Press the **INFO-Button**.
2. Press the **yellow Options-Button** for getting the *"Single-EPG"* view.

You can also access this view by pressing:

1. Press and hold the **INFO-Button** for about 2 seconds. With the **Navigation-Buttons** (▲▼) choose the option *"show single service-epg'* and press the **OK-Button**.

   or

2. Press the **Navigation-Buttons** (▲▼) to open the services list. With the **Navigation-Buttons** (▲▼) choose one channel and then press the **Info-Button**. This way you can very quickly and easily access the Single-EPG of every service.

EPG-Auswahl - hr-fernsehen
Timer setzen
Sort. A-Z
Di 16.03, 09:30 Geomorphologie
Di 16.03, 09:50 Wissen macht Ah!
Di 16.03, 10:15 In aller Freundschaft
Di 16.03, 11:00 service: familie
Di 16.03, 11:25 Expedition an die Rur
Di 16.03, 11:55 Weiches Fell und scharfe Krallen
Di 16.03, 12:45 In aller Freundschaft
Di 16.03, 13:30 Zwischen Fritzlar und Bad Wildungen
Di 16.03, 14:15 Deutschlands älteste Bäume
Di 16.03, 15:00 Eisenbahnromantik
Di 16.03, 15:30 Grünzeug
Di 16.03, 16:00 WER WEISS ES?
Di 16.03, 16:45 hessenschau kompakt
Di 16.03, 17:00 Weiches Fell und scharfe Krallen
Di 16.03, 17:50 hessenschau kompakt

By pressing the **yellow Options-Button** you can ether sort the *"Single-EPG"* alphabetically or by time.

By pressing the **Arrow-Left-** or **Arrow-Right-Buttons** you can switch to EPG of the previous or next service.

Multi-EPG

Follow this steps:

1. Press the **Info-Button**.
2. Press the **blue Options-Button** for switching to *"Multi-EPG"* view.

Use the **blue** and **yellow Options-Buttons** to switch between the *now, next and more* views. Pressing the **green Options-Button** will give you the possibility to automatically copy the start and end time of the selected show into a recording timer.

If you have set the *"Multi bouquets"* option to *"yes"* (see *Chapter6.2 Customize* on page 45) a selection of your bouquets will appear. Select the bouquet for which you want the Multi-EPG view.

This view shows the currently airing shows on the services listed in the left column. A progress bar showing the progress of the currently airing show is placed next to the service's name.

With the **Navigation-Buttons** (▲▼) you can select a service, just like in the service list, and change to the selected service by pressing the **red Options-Button**.

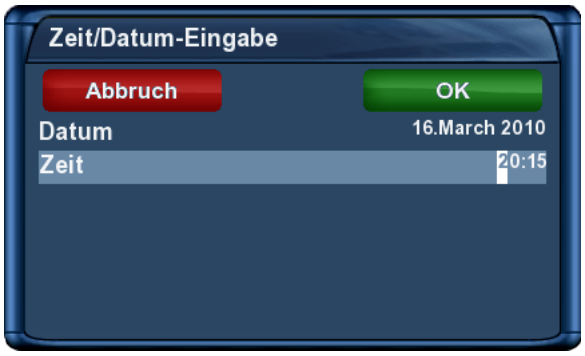
EPG-Auswahl
Zap
Timer setzen
Zurück
Vor
JETZT
NÄCHSTE
MEHR
Heute 16.3.
Das Erste HD 09.55 - 10.00 ARD-Wetterschau
ZDF HD 10.30 - 11.15 ZDF Paralympics extra
hr-fernsehen 09.50 - 10.15 Wissen macht Ah!
RTL 10.30 - 11.00 Mein Baby
SAT.1 10.00 - 11.00 Pures Leben - Mitten in Det
RTL2 11.00 - 12.00 Big Brother Spezial
ProSieben 10.16 - 10.42 Scrubs - Die Anfänger
kabel eins 09.52 - 10.24 Wer ist hier der Boss?
TELE 5 12.40 - 13.35 Andromeda
D VIERTE 10.00 - 10.30 Dauerwerbesendung
VOX 10.10 - 11.10 Gilmore Girls
zdf_neo 10.25 - 11.05 Die Küchenschlacht
ANIXE SD 12.35 - 13.00 Kinomagazin
LUXE.TV SD

General overview of the following programming.

EPG-Auswahl
Zap
Timer setzen
Zurück
Vor
JETZT
NÄCHSTE
MEHR
Heute 16.3.
Das Erste HD 10.00 - 10.03 Tagesschau
ZDF HD 11.15 - 11.35 Reich und Schön
hr-fernsehen 10.15 - 11.00 In aller Freundschaft
RTL 11.00 - 11.30 Die Kinderärzte
SAT.1 11.00 - 12.00 Richterin Salesch
RTL2 12.00 - 13.00 Der Trödeltrupp - Das Geld
ProSieben 10.42 - 11.08 Scrubs - Die Anfänger
kabel eins 10.24 - 10.52 King of Queens
TELE 5 13.35 - 14.35 Superman - Die Abenteuer
D VIERTE 10.30 - 11.00 LIVING GOSPEL - Gemeind
VOX 11.10 - 11.15 vox nachrichten
zdf_neo 11.05 - 11.35 Durchgang verboten!
ANIXE SD 13.00 - 14.00 Geheimnisvolle Drachenbe
LUXE.TV SD

General overview of the upcoming programming for the following days. (Depending on the station up to one week).

Time/Date Input



Press the **Menu-Button** in the Multi-EPG view.

A window will appear where you can enter a time and date.

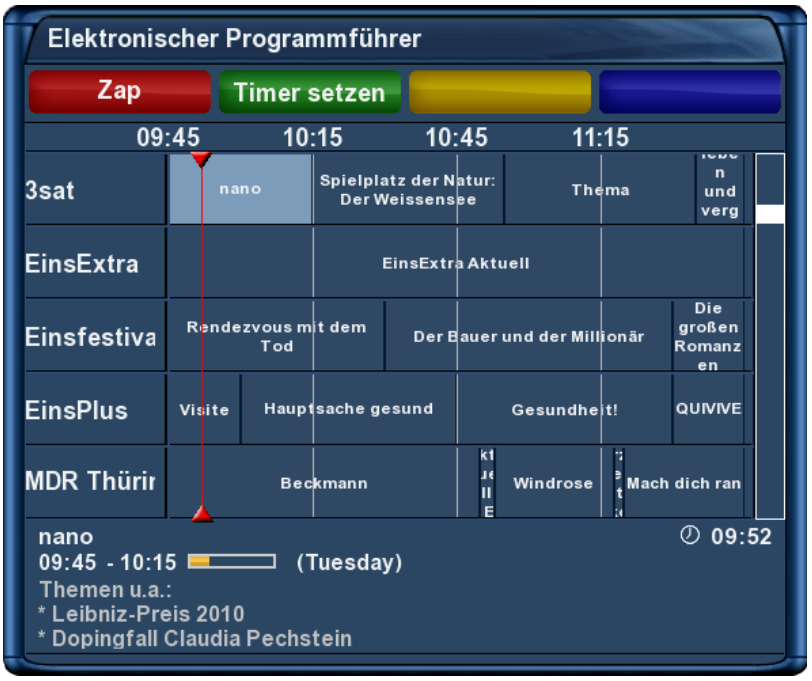
After you have entered the desired time and date press the **OK-Button** to activate you selection.

Graphical Multi-EPG

You have another option to view the EPG of different services and successive shows. The Graphical Multi-EPG displays the EPG overview of the upcoming hours (can be set to 1-5 hours with the **Buttons 1-5** on the **Numeric-Keypad**) for the chosen bouquet.

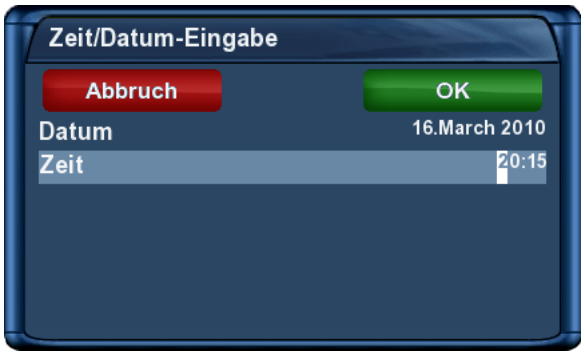
To access the Graphical Multi-EPG follow this steps:

1. Press the **blue Options-Button** or press+hold the **INFO-Button** for about 2 seconds.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Graphical Multi-EPG"* and press the **OK-Button**.



Using the **Navigation-Buttons** (▲▼◄►) you can browse the shows. More detailed information about the sleected show is displayed in the bottom part of the EPG. You can directly set a timer for the selected show, by just pressing the **green Options-Button**.

Time/Date Input



Press the **Menu-Button** in the Multi-EPG view.

A window will appear where you can enter a time and date.

After you have entered the desired time and date press the **OK-Button** to activate your selection.

3.11 Teletext (Videotext)

Press the **Text-Button** to enter the Teletext. With the **EXIT-Button** you can leave teletext.

Keep in mind that not every station transmits Teletext!

Teletext - regular navigation

If you are viewing any Teletext page you can enter the interactive mode by pressing the **OK-Button**. Use the **Navigation-Buttons** (▲▼) to select a text page number and press the **OK-Button** to call this page. You don't need to type in a text page number in this mode, but it is still possible.

Press the **Mute-Button** a couple of times to toggle between transparent-mode, invisible-mode and full mode.
Press the **Volume-up-Button** to toggle between double high from the upper half, double high from the lower half and full view text page.
Press the **Volume-down-Button** to activate or deactivate the PIG-Mode (Picture in Graphics). Same view from Text page and Program picture. (best results are show on 16:9 TV's during 4:3 transmission).

Teletext configuration menu:

If the Teletext page 100 is shown you can press the **MENU-Button** to enter the Teletext configuration menu.

You have the following options:

Teletext - Selection Select the *"Search"* option and press the **OK-Button** to start searching for Teletext information on other services without having to leave the service that you currently are watching. After the search is finished you can use the **Navigation-Buttons** (◄►) to select the Teletext of another

service without having to switch services. Press the **OK-Button** to select the desired Teletext. This option is only available if more than one service on the current satellite transponder actually transmits Teletext information. If this is not the case you cannot make a selection.

Screen format: Standard mode 16:9 = on/off Enabling this shows the TuxText in 16:9 Aspect Ratio. Press the **OK-Button** to enable or disable this option. The default setting is disabled.

Text/TV mode 16:9 = on/off Enabling this, switches the TV to 16:9 Aspect Ratio if the PIG-Mode is activated with the **Volume-down-Button**. Press the **OK-Button** to enable or disable this option. The default setting is disabled.

Note: On some older 4:3 TV's these Modes may not work. If enabled, it could happen, that your TV switches away from the VCR or A/V socket. If you are using a 4:3 TV, we suggest not to enable these modes.

Brightness Here you can adjust the brightness of your Teletext. Press the **Navigation-Buttons** (◄►) to adjust the brightness.

Transparency Here you can adjust the transparency value of your Teletext. Press the **Navigation-Buttons** (◄►) to adjust the alpha value.

National characterset: automatic recognition = on/off Press the **OK-Button** to enable or disable this option. The default setting is enabled. If disabled, use the **Navigation-Buttons** (◄►), to choose your codepage.

3.12 Sleep timer

Using the sleep timer you can put your Dreambox into standby or turn it off after a predeterminedamount of time.

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Standby / Restart"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Sleep timer"* and press the **OK-Button**.

Sleep timer

Shutdown Dreambox after Set the number of minutes after you wish the predetermined shutdown action to be executed.

Timer-Status Set this option to *"enabled"* to activate a set sleep timer or to *"disabled"* to deactivate a set sleep timer. Press the **red Options-Button** to change the status.

Sleep timer action Select *"Deep Standby"* to completely turn off you Dreambox or *"Standby"* to put it into standby mode. Press the **green Options-Button** to toggle the sleep timer action.

Ask before shutdown If this option is set to *"Yes"* a safety window will appear once the sleep timer is executed asking you if you really want to turn off your Dreambox. Press the *yellow Options-Button* to toggle this option.

Use time of currently running service Press the *blue Options-Button* to take over the remaining time of the service as shutdown time.

Once you have set all options to your liking press the **OK-Button** to save your settings. A short note will tell you that the sleep timer has been activated.

Chapter 4

Edit the channellist

What is a bouquet?

A bouquet can be thought of something like a folder. Every channel equals a page in this folder and the pages are sorted into categories.
This way you can create a bouquet called *"Kids"*, for example, under which you *"file"* all children's stations. Another example would be to create a bouquet called *"Sports"* where you put all sports channels. This way you can create several topic related bouquets.

You can only delete channels in the *favorites view!*

You cannot delete the channels in the *"All"* view. The use of the *"All"* view is to keep an internal list of all available stations. If you start a new channel search the result would be saved to the *"All"* view for example. You favorites bouquet will stay untouched. This way you can easily add newly found channels from the *"All"* list to your favorites bouquet. To see how it is done refer to *Chapter 4.2 Add a service to favorites* on page 29.

4.1 Adding a bouquet

To be able to add a bouquet you have to set the *"Allow multiple bouquets"* option to *"yes"*. (Refer to *Chapter 6.2 Customize* on page 45).

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. Press the **blue Options-Button** to switch to the bouquet view.
3. By pressing the **Menu-Button** the *"Channellist menu"* will open up.
4. With the **Navigation-Buttons** (▲▼) choose the option *"add bouquet"* and press the **OK-Button**.
5. Use the **Numeric-Keypad** on your remote control to enter the name for the new bouquet. The according letters are printed on button. The **Mute-Button** deletes a character.
6. Press the **OK-Button** to add the new bouquet to your favorites list. You will be taken back to the *"Channellist menu"*.

4.2 Add a service to favorites

If you want to add a service to your **Favorites-view** you can choose from services in the **All-, Satellites- and Provider-views**. You can switch views by pressing the **red, green, yellow and blue Options-Buttons**. At this point we only describe the process from the **All-Bouquet** since it is the same for the others.

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. Press the **red Options-Button** to switch to the *"All"* view.
3. With the **Navigation-Buttons** (▲▼) choose the **MENU-Button** to open the *"Channellist menu"*.
4. With the **Navigation-Buttons** (▲▼) choose the option *"add service to bouquet"* and press the **OK-Button**.

   If you are using more than one bouquet this option is named *"add service to bouquet"* instead and you will get a list of your bouquets afterwards. You can choose to which bouquet you want to add the currently selected service. If you are using only one bouquet which is the factory default, the service will be added to you favorites list.

4.3 Adding multiple services to a bouquet

You can select multiple services from the *"All-view"* to be added to the currently selected bouquet.

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. Use the **Bouquet +/- Buttons** to switch to the desired bouquet to which you want to add channels. As an alternative you can press the **blue Options-Button** and select the desired bouquet. After that select a service and switch to it by pressing the **OK-Button**.
3. By pressing the **MENU-Button** the *"Channellist menu"* will open up.
4. With the **Navigation-Buttons** (▲▼) choose the option *"enable bouquet edit"* and press the **OK-Button**, he *"Allview"* will open up.
5. All services that are in the selected bouquet for which you just enabled the option *"enable bouquet edit"* are highlighted red. With the **Navigation-Buttons** (▲▼) choose a desired service and press the **OK-Button** to select. The service will be highlighted red. Using this method you can select additional services that you want to add to the bouquet. Once you have selected all services that you want to add, press the **Menu-Button**. The *"Channellist menu"* will open up.
6. With the **Navigation-Buttons** (▲▼) choose the option *"End bouquet edit"* and press the **OK-Button**.
   All highlighted services will now be added to the bouquet that you selected in the beginning. If you are only using one bouquet, which is the default setting, the selected services will be added to you favorites list.

4.4 Remove a service from favorites

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. With the **Navigation-Buttons** (▲▼) choose the channel you want to delete.
3. By pressing the **MENU-Button** the *"Channellist menu"* will open up.
4. With the **Navigation-Buttons** (▲▼) choose the option *"remove service"* and press the **OK-Button**. The selected service will be deleted from your favorites list.

4.5 Moving a service to favorites

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. By pressing the **MENU-Button** the *"Channellist menu"* will open up.
3. With the **Navigation-Buttons** (▲▼) choose the option *"enable move mode"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the service you want to move and press the **OK-Button**. The service will be highlighted red.
5. With the **Navigation-Buttons** (▲▼) move the channel to the desired position and press the **OK-Button**, to place the service it at it's new position. You can move services as long as the move mode is activated.
6. Press the **Navigation-Buttons** (▲▼) to open the channellist.
7. With the **Navigation-Buttons** (▲▼) choose the option *"disable move mode"* and press the **OK-Button**.

4.6 Adding a marker to favorites

With the help of markers you will be able to switch fast to a certain position within a bouquet.

Follow this steps:

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. Use the **Bouquet +/- Buttons** to switch to the desired bouquet to which you want to add markers. As an alternative you can press the **blue Options-Button** and select the desired bouquet. Afterwards choose a channel with the **Navigation-Buttons** (▲▼). The marker will be added above the selected service.
3. By pressing the **MENU-Button** the *"Channellist menu"* will open up.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Add Marker"* and press the **OK-Button**.
5. Use the **Numeric-Keypad** on your remote control to enter the name for the new bouquet. The according letters are printed on button. The **Mute-Button** deletes a character.

6. Press the **OK-Button**, to add the marker to your favorites list.
   If you have added two markers use the **Arrow-Left** and **Arrow-Right-Buttons** to jump between those two markers.

4.7 Parental control

Parental control makes it possible to lock selected channels.

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**..
3. With the **Navigation-Buttons** (▲▼) choose the option *"Parental control"* and press the **OK-Button**.

Lock a service

1. With the **Navigation-Buttons** (▲▼) choose the option *"Enable parental control"* and switch the *"yes"* with the **Navigation-Buttons** (◄►).
2. With the **Navigation-Buttons** (▲▼) choose the option *"Parental control type"* and choose between the options *"Whitelist"* and *"Blacklist"* with the **Navigation-Buttons (◄►)**.

   Whitelist means that all channels NOT in the parental control list will be locked.

   Backlist means that all the channels in the parental control list will be locked.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Edit Channellist"* and press the **OK-Button**.
4. Press the **Navigation-Buttons** (▲▼) to select the first letter of the channel that you want to lock or allow and press the **OK-Button**.

   In this example we decided to lock the service called **"ProSieben"**. Accordingly we selected the "P" as the first letter. The *Parental control services Editor* will open up. All services beginning with the letter "P" are shown.
5. With the **Navigation-Buttons** (▲▼) choose the service *"ProSieben"* and press the **OK-Button**. A symbolized padlock will appear in front of the channel letting you know that it can only be watched when the right pincode is entered.

   If you have selected whitelist under the *"Parental control type"* then this channel will be the only one that can be viewed without entering the right pincode.

Change service pin

1. With the **Navigation-Buttons** (▲▼) choose the option *"Change service pin"* and press the **OK-Button**.

2. With the **Numeric-Keypad** enter a 4-digit Pincode. You have to enter the new pincode twice to ensure you didn't make any typing errors. If you already created a pincode earlier you will be prompted to enter the old pincode and afterwards the new one.

   You will see a notice that the pincode has been changed. If the entered pincode was false you will see this notice. Press the **OK-Button** to get back into the *"Change service pin"* menu and to enter the correct new pincode twice.

3. Press the **OK-Button** to get back into the Parental control menu.

Protecting the parental lock setup

Additionally you have the option to protect the parental control menu using a pincode.

Setting the *"Protect setup"* option to *"yes"* you will only be able to change parental control setting after you have entered the correct pincode.

1. Once you entered the wrong pincode three times in a row you have to wait 15 minutes before you can try again.

2. You can use two different pincodes to protect the setup and the service list.

Chapter 5

Hard disk operation

Hint: When using an external eSATA HDD it must have an own power supply!!!

5.1 Installation-Guide

This capter describes how to install a 2,5“ SATA Hard disk in your Dreambox DM800 HD se.

Please always adhere to ESD (Electrostatic Discharge) regulations when handling electronic devices.

- Make sure that you are grounded.
- Do not open the device in your living room or in any other rooms with carpeting or any other flooring that can carry an electrostatic charge.
- Remove all connection from the device.
- Only open the device with the tools depicted in this manual.
- Try to avoid direct contact with the main circuit board.

If all this doesn't mean anything to you or if you have too many question, please contact your dealer or technician.

Also notice the warranty notes in chapter *Punkt 1.1 Safety instructions* on page 1.

Opening the device

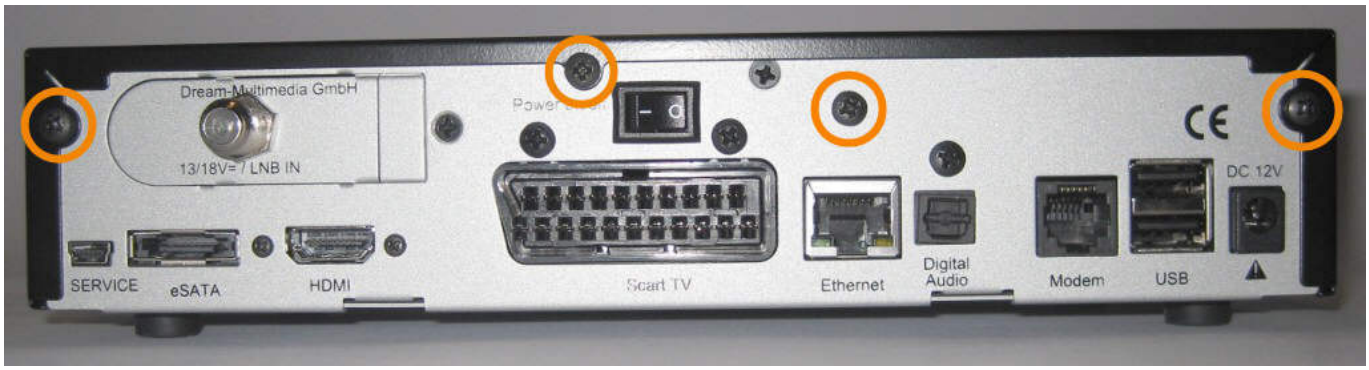
1. Unscrew the screw(s) on the left side of your Dreambox.

Remove screw(s) on the left side

2. Unscrew the screw(s) on the right side of your Dreambox.

Remove screw(s) on the right side

3. Remove the marked screw(s) on the rear panel.



Remove marked screw(s) on the rear panel

4. Lift the cover off as shown below.

Lift cover as shown

Installation of a 2,5" SATA Hard disk

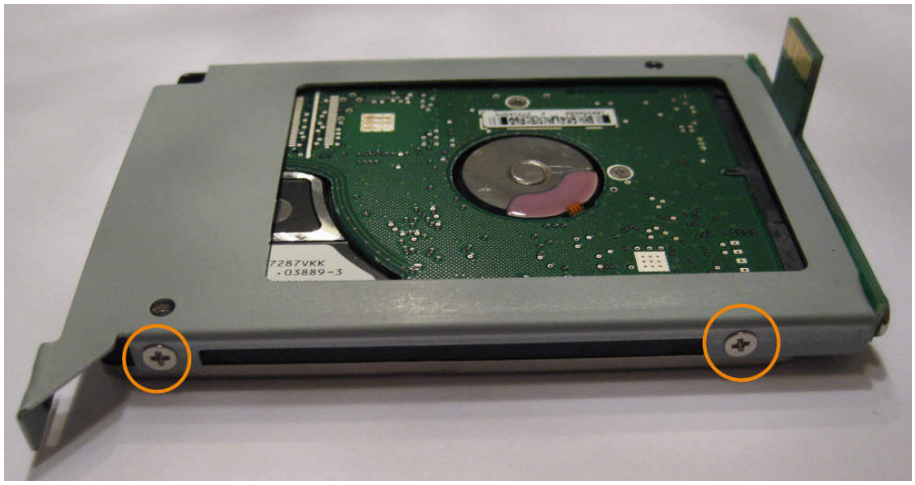
1. Lift the hard disk cage upwards.

Lift hard disk cage

2. Place the hard disk in the cage and ensure that you place the hard disk carefully into the plug of the hard disk cage.

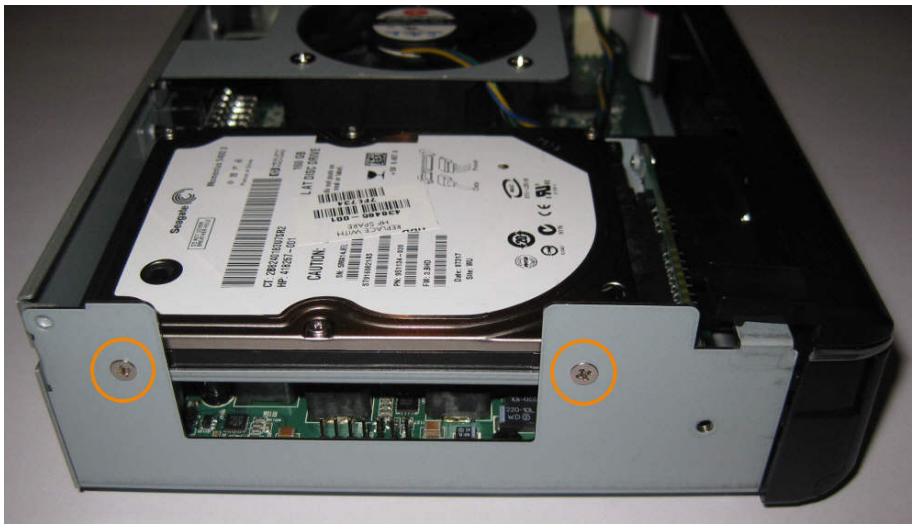
Placing hdd to hard disk cage

3. Now you need a Phillips-tip screwdriver, the hard disk cage, your hard disk and two screws for mounting the hdd. Tighten the hard disk with the two screws on the left side of the hard disk cage (see figure).



Left side

4. Now remount the hard disk cage in your Dreambox and ensure the correct fitting of the hard disk cage connector to the slot on the mainboard. Then tighten the hard disk cage with 2 screws to the housing of the dreambox (see figure).



Fit hdd cage to dreambox housing

5. Reassamble your Dreambox by following the guide (siehe *Punkt 5.1 Opening the device* on page 34) backwards.

6. Reattach all necessary cables to your Dreambox making sure that you connect the power cord as last.

Before you can use your hard disk for recordings it has to be initialized by the box as described in *Punkt 5.2.1 Initialization* on page 38.

5.2 Management

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Harddisk"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"Harddisk setup"* and press the **OK-Button**.

You now can set the duration of time after which the harddisk will be put into standby-mode. You can select from:

- No standby
- 10 or 30 Seconds
- 1, 2, 5, 10, 20 or 30 Minutes

- 1, 2 or 4 Hours

Once you have selected the desired time press the **OK-Button** or the **green Options-Button** to get back into the harddisk menu.

5.2.1 Initialization

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Harddisk"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"Initialization"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"ST3500820AS - Internal (488.395 GB)"* and press the **OK-Button**. If you have installed another hard disk this option will differ from the one depicted!
7. By pressing the **red Options-Button** you will initialize (format) the hard disk. After you confirm the safety question the initialization process starts.

!!! WARNING !!! All data stored on the HDD will be lost.

5.3 Recording

5.3.1 Instant recording

Press the **red Options-Button**.

You have five available options.

1. Add recording (indefinitely)
2. Add recording (stop after current event)
3. Add recording (enter recording duration)
4. Add recording (enter recording endtime)
5. Don't record

Use the **up/down-Buttons** to navigate to you desired selection and press the **OK-Button** to select.

A ongoing recording is indicated by a flashing symbol in the Infobar (see *Chapter 3.9 Infobar* on page 20). During a recording you can watch another service, view a previously recorded movie or add an additional recording.

The number of simultaneous recordings depends on the configuration of the installed tuner and on the number of services residing on a transponder. It is possible to make up to four simultaneous recordings.

Pressing the **Up/Down-Buttons** on your remote control activates the service list. The recording continues in the background. Once a recording is started, no matter if manually or by timer (see *Chapter 5.3.3 Recording by timer* on page 39) it will be signaled by a note on the screen.

Is the tuner used for recording and you are trying to access a service that is not on one of the recorded transponders you will get the *"No free tuner"* message.

5.3.2 Stop recording

Switch to the service which recording you want to stop.

1. Press the **red Options-Button**.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Stop recording"* and press the **OK-Button**.

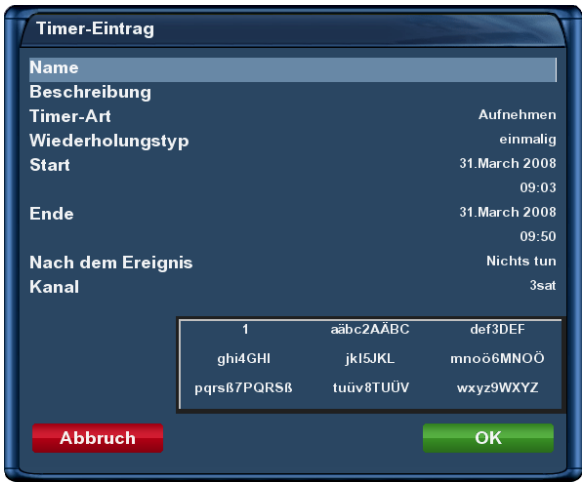
If you only have one active recording it will be stopped immediately. If more than one recording is active you will given the choice which recording you want to stop.

5.3.3 Recording by timer

With the help of a timer you can record shows to your hard disk (if you have a hard disk installed). You are offered two different ways to program a timer, the manual way of via the EPG.

Manual programming

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Timer"* and press the **OK-Button**.
3. Press the **green Options-Button** to add a new timer.



Add Timer

You can choose between two different timer types. *"Record"* to record the desired show or *"Zap"* to automatically switch to the service.

As repeat type you can choose between *"once"* and *"repeated"*.

The repeat type *"repeated"* offers you the following options:

- daily
- weekly with choice of weekday
- Monday through Friday
- user defined (for each day from Monday through Sunday)

For all four options you can set a date for the first execution of the timer You can decide what should happen after the recording finishes by selecting the *"After event"* option. You can choose between

auto to keep your Dreambox in the same state as before the recording

do nothing to keep your Dreambox turned on after the recording

go to standby to put your Dreambox into Standby mode

go to deep standby to shutdown your Dreambox once the timer is done

Set you desired option by pressing the **Navigation-Buttons (up/down and left/right)** and press the **green Options-Button** to save the timer.

Programming via EPG

Change into on of the EPG views in chapter (as described in *Chapter 3.10 Electronic Program Guide - EPG* on page 21). By pressing the **green Options-Button** you have the option to automatically add the selected show with it's start and end time as a timer. All other options are the same as in the manually added timer. Press the **green Options-Button** to save the timer. You will be taken to the "Timer Editor" menu.

EPG-Auswahl - ZDF
Timer setzen
Sort. A-Z
Di 02.03, 15:15 Tierisch Kölsch
Di 02.03, 16:00 heute - in Europa
Di 02.03, 16:15 Hanna - Folge deinem Herzen (244)
Di 02.03, 17:00 heute - Wetter
Di 02.03, 17:15 hallo deutschland
Di 02.03, 17:45 Leute heute
Di 02.03, 18:05 SOKO Köln
Di 02.03, 19:00 heute
Di 02.03, 19:20 Wetter
Di 02.03, 19:25 Die Rosenheim-Cops
Di 02.03, 20:15 Faszination Erde (2/4)
Di 02.03, 21:00 Frontal 21
Di 02.03, 21:45 heute-journal
Di 02.03, 22:12 Wetter
Di 02.03, 22:15 37 Grad

Choose service which you want to record

fill text

Timereditor

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Timer"* and press the **OK-Button**.

Timerlist

Pressing the **red Options-Button** will delete a timer. The **green Options-Button** adds a timer, the **yellow Options-Button** toggles active on and off (only possible in waiting status) and the **blue Options-Button** removes finished timers from the list.

With the **Navigation-Buttons** (▲▼) choose an existing timer and press the **OK-Button** to edit.

The status of a timer is shown on the right side:

waiting means: still coming up

recording means: recording right now

done means: recording finished

the red X indicates that a timer was deactivated

If you pressed the **blue Options-Button** you will be asked if you really want to delete the finished timer. Use the **Navigation-Buttons** (▲▼) to select. Press the OK-Button to activate.

Your Dreambox will be turned on 5 minutes before the recording if a recording is supposed to start while the Dreambox is in Deep-Standby mode.

5.3.4 Timeshift

Press the **yellow Options-Button** to pause the screen (video and audio will pause). The recording will continue in the background. You can fast-forward and rewind while recording as long as you have already recorded at least 1 minute long.

Press the PLAY/PAUSE-Button again to resume watching. This way you won't have to miss anything ever again if you quickly have to catch a phone call.

The Timeshift-Mode can be exited by pressing the **TV-Button**.
To ensure the Timeshift-Mode is not stopped by accident you will be asked if you want to quit the Timeshift-Mode.

Use the **Navigation-Buttons** (▲▼) to select. Press the **OK-Button** to activate.

5.4 Watch a recording (Playback)

1. Press the **Video-Button** to get to the selection of recordings.
2. Use the **Navigation-Buttons** (▲▼) to select a recording. Press the **OK-Button** to start playing it.

List of recordings

During replay you can see the control symbols in the Infobar. Press the **Navigation-Buttons** (▲▼) or press the **VIDEO-Button**, to get back to the list of recordings.

If you have previously watched the movie you will be asked to continue where you left off when you start watching it the next time. If you do not make a selection within 10 seconds the window will disappear and the movie starts from the beginning.
In PVR-Mode the Options-Buttons are mapped as described below:

red Options-Button = Rewind

green Options-Button = Pause and Play

yellow Options-Button = Pause-Function

TV-Button = Stop

blue Options-Button = Fast Forward

Keep in mind that you have to be in the PVR-Mode to use these options. You can check this by pressing the **OK-Button**. The Infobar will reveal and should show the depicted control symbols. If they are not shown you simply have to press the **VIDEO-Button**.

The infobar mustn't be shown for using the playback functions.

For leaving playback mode follow this steps:

1. Press the **TV-Button**.
2. You will be asked if you want to stop the replay of the recording. If you choose *"Yes"* you will be taken back to the last channel you were watching.

Skipping in a recording

Button	Time
Button 1	10 sec. back
Button 4	1 min. back
Button 7	5 min. back

Skip backward

Button	Time
Button 3	10 sec. forward
Button 6	1 min. forward
Button 9	5 min. forward

Skip forward

Spooling in a recording

The following speeds for spooling in a recording are available:

- Forward (**blue Options-Button**): 2x,4x,8x,16x,32x,48x,64x,128x
- Back (**red Options-Button**): 8x,16x,32x,48x,64x,128x

Every press on the button increases the speed by one step.

5.5 Setting a marker (Bookmarks)

Fast forward to the point where you want to add a marker and press the **0** on the **Numeric-Keypad**.

This will set a marker at the desired point.

Infobar Movieplayer with Markers

The red dashes in the timeline correlate to a marker.

Skip to a marker

You can directly skip to a previously set marker during playback.

Press the **Arrow-Left-Button** to skip to the previous marker and press the **Arrow-Right-Button** to skip to the next marker.

To delete a marker skip to it as described above and press the **0** on the **Numeric-Keypad**.

5.6 Delete a recording

1. Press **VIDEO-Button**, to get to the selection of recordings.
2. With the **Navigation-Buttons** (▲▼) choose a recording and press the **Menu-Button**.

3. With the **Navigation-Buttons** (▲▼) choose the option *"delete"* and press the **OK-Button**. You will be asked if you want to delete the recording. As a control feature the name of the recording is displayed as well. Choose *"Yes"* and you will be taken back to the selection of recordings.

5.7 Movielist options

Follow this steps:

1. Press the **VIDEO-Button**, to access the Movielist.
2. Press the **Menu-Button**.

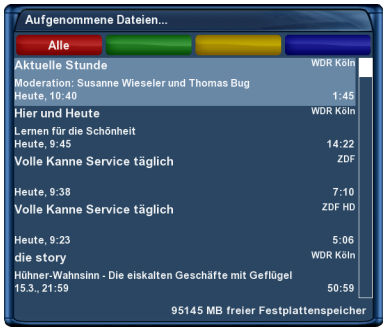
Sorting options

You have the choice between two different sorting options:

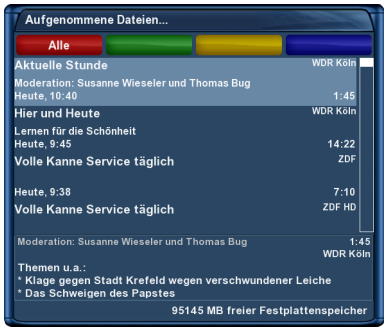
1. Alphabetic sort
2. Sort by date

List styles

You have the choice between different list styles:



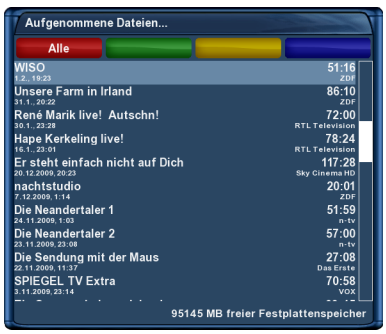
List style default


Aufgenommene Dateien...
Alle
Aktuelle Stunde WDR Köln
Moderation: Susanne Wieseler und Thomas Bug
Heute, 10:40 1:45
Hier und Heute WDR Köln
Lernen für die Schönheit
Heute, 9:45 14:22
Volle Kanne Service täglich ZDF
Heute, 9:38 7:10
Volle Kanne Service täglich ZDF HD
Moderation: Susanne Wieseler und Thomas Bug 1:45
WDR Köln
Themen u.a.:
* Klage gegen Stadt Krefeld wegen verschwundener Leiche
* Das Schweigen des Papstes
95145 MB freier Festplattenspeicher

List style default with extended description

Aufgenommene Dateien...
Alle
WISO 51:16
Unsere Farm in Irland 86:10
René Marik live! Autschn! 72:00
Hape Kerkeling live! 78:24
Er steht einfach nicht auf Dich 117:28
nachtstudio 20:01
Die Neandertaler 1 51:59
Die Neandertaler 2 57:00
Die Sendung mit der Maus 27:08
SPIEGEL TV Extra 70:58
Ein Sommer in Long Island 93:45
Next World - Das Leben von morgen 40:01
stern TV 116:55
Tel Aviv - weißer Traum am Mittelmeer 21:05
I Want Candy 56:11
95145 MB freier Festplattenspeicher

List style single line



List style compact

List style compact with desciption

Chapter 6

Setup

6.1 Language

1. If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Language"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose your desired language and press the **OK-Button** in order to activate.

6.2 Customize

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Language"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose your desired language and press the **OK-Button** in order to activate.

Setup modes

There are three different user modes: **Simple, Intermediate and Expert**.

This gives you the possibility to set the level of options to your needs. Intermediate is the default setting. We will not explain the expert mode in detail in this manual.

6.2.1 Simple Mode

Margin before record (in Minutes): Set the desired forerun in minutes for a recording.

Margin after record: Set the desired lag in minutes for a recording.

Show blinking clock in display during recording: Select wether you want the time in the OLED-Display to blink during a recording or not.

Infobar timeout: Set the desired time after which you want the Infobar to disappear. You can choose between one and ten seconds or "no timeout".

6.2.2 Intermediate mode:

These settings supplement the settings in simple mode.

Recordings always have priority: If this option is set to **"Yes"** your Dreambox will automatically switch to the service which is supposed to be recorded incase there is a conflict with an existing timer. If you set this option to **"No"** you will be asked if you want to switch to the service which is supposed to be recorded.

Show positioner movement: If you own a satellite dish with a positioner you can see a flashing symbol of a satellite dish on your screen if you set this option to **"yes"**.

Enable multi bouquets: Set this option to **"Yes"** if you want to use multiple bouquets.

Change bouquets in quickzap: If this option is set to **"Yes"** you will automatically be taken to the next bouquet while changing channels once you have reached the end of one bouquet.

Alternative radio mode: Set this option to **"Yes"** if you want the handling in the Radio mode to be the same as in the TV mode.

Action on long powerbutton press: Set your desired option what is supposed to happen if you push the Standby-Button for a few seconds. The possible options are **"show shutdown menu"** and **"immediate shutdown"**.

Action on short powerbutton press: Set your desired option what is supposed to happen if you push the Standby-Button shortly. The possible options are **"show shutdown menu"**, **"immediate shutdown"** and **"standby"**.

6.3 Timezone

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Timezone"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (◄►) choose your timezone and press the **OK-Button**. Alternatively press the **green Options-Button** to save the setting or the **red Options-Button** to discard them.

6.4 A/V Settings

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"A/V Settings"* and press the **OK-Button**.

Video output

This option selects to which output the video signal will be sent to.

HDMI If you have connected your TV to the HDMI output of your Dreambox set the **"Output type"** option to **"HDMI"**.

Scart If you have connected your TV to the Scart output of your Dreambox set the **"Output type"** option to **"Scart"**.

Modus

Use the **Navigation-Buttons** (◄►) to select the desired screen resolution

Display 4:3 content as:/Display 16:9 content as:

Pillarbox 4:3 shows will be shown in full height on a 16:9 screen and you will have black bars on both sides.

Pan&Scan 4:3 shows will be shown in full width on a 16:9 screen and a bit will be cut off on the top and bottom.

Just Scale 4:3 shows will be shown in full height on a 16:9 screen and are stretched to fit the width of your screen.

Nonlinear Only the outer parts of the picture are stretched to prevent the center from being distorted. You will still have a full screen picture.

AC3 default: If a program is transmitted with an AC3 audio track (e.g. Dolby Digital), the Dreambox switches automatically to this audio track. Volume control of AC3 signals only works if *"AC3 downmix"* is activated. Please keep in mind that *AC3 downmix* will disable the output of real AC3 signals on every audio out, even on the S/P DIF output.

AC3 downmix If you're watching a show with a AC3 audio track it will be changed into a stereo signal. Set this option to *"yes"* if your have an AV-Receiver that does not support Dolby Digital.

General AC3 Delay With this opzion you can adjust a delay of the AC3 signal. This might be helpful, if the sound (on activated AC3 output) is to hear sooner or later than the picture. The adjusted value has affect on all channels. With the **Navigation-Buttons** (◄►) you can adjust a delay in 25ms-Steps.

Allgemeine PCM Verzögerung With this opzion you can adjust a delay of the PCM signal. This might be helpful, if the sound (on activated AC3 output) is to hear sooner or later than the picture. The adjusted value has affect on all channels. With the **Navigation-Buttons** (◄►) you can adjust a delay in 25ms-Steps.

GUI-opacity With the **Navigation-Buttons** (◄►) you can change the transparency of the gui.

Scaler sharpness With the **Navigation-Buttons** (◄►) you can change the sharpness of the screen.

These options are only available if the output type is set to "Scart"

Mode

Scart Select the standard supported by your TV screen. This is usually either PAL or NTSC. If you own a TV screen which supports both modes you can also select the Multi option. Your TV screen will automatically switch depending on the input signal. These options are only available ifthe output type is set to "Scart".

Aspect ratio

Automatic (Standard) 4:3 shows will be shown as 4:3 and 16:9 shows will be shown as 16:9.

4:3

Display 16:9 content as:

Letterbox 16:9 programs will be displayed on 4:3 TV's with black beams at top and bottom.

Pan&Scan 16:9 programs will be zoomed to full hight on 4:3 TV's, parts of the picture on the left and right side will cut off.

Just Scale 4:3 shows will be shown in full height on a 16:9 screen and are stretched to fit the width of your screen.

16:9 and 16:10

Display 4:3 content as:
Please see previous page

Color format

- RGB (Red, Green, Blue separated) Recommended setting for scart connection.
- S-Video (Color- and Brightness signal separated)
- CVBS (FBAS)

WSS on 4:3 Check the checkbox to disable zooming on some 16:9 TV's during 4:3 transmissions.

6.5 OLED-Display

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Display Setup"* and press the **OK-Button**.

Now you can set the brightness of the OLED-display for standby and operation mode.

Operation

1. With the **Navigation-Buttons** (▲▼) choose the option *"Operation"*.
2. With the **Navigation-Buttons** (◄►) choose the brightness of the OLED-Display for operation mode.

Standby

1. With the **Navigation-Buttons** (▲▼) choose the option *"Standby"*.
2. With the **Navigation-Buttons** (◄►) choose the brightness of the OLED-Display for standby mode.

6.6 Network

Connection via network cable

Adapter-Settings

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Network"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"Adapter Settings"* and press the **OK-Button**.
6. Use the **Navigation-Buttons** and the **Numeric-Keypad** to change the settings.

Use interface This option toggles the integrated ethernet interface on and off.

Use DHCP If enabled your Dreambox will get its IP from a DHCP server. If you are using a router to access the internet you usually have a DHCP server. Disable this option to set a static IP address.

Manually setting an IP address

These settings are only needed if you have selected "no" on the "Use DHCP" option before

IP-Address Enter the IP address here.

Free IP-Addresses: *192.168.0.2 - 192.168.0.254*

Netmask Enter the subnet mask (Usually 255.255.255.0).

Gateway Enter the router's IP address here, if the Dreambox is connected to the Internet over a router.

Usually this is: *192.168.0.1*

To save the settings and activate the network connection press the **OK-Button**.

DNS-Settings

Note: If you have set the *"Use DHCP"* option to *"yes"* you won't have to enter anything here since this will be done automatically.

Nameserver Enter the DNS-Server's IP address here. DNS is used to translate a Domain name to an IP address. Normally, if the Type is set to LAN, there is no need for a DNS entry. If the Dreambox is connected to the Internet over a router, enter the router's IP address here. Press the **green Options-Button** if you want to add a second nameserver and the **yellow Options-Button** to delete a nameserver. You can enter a maximum of two nameservers.

Network test

The network test will assist you in finding possible sources of error in your network configuration. Press the **green Options-Button** to start the test or to repeat it. Press the **yellow Options-Button** to abort the test.

Once the test has finished you can get additional information and help to every subitem of the test. Use the **Navigation-Buttons (▲▼)** to select an item and press the **OK-Button**.

before the test

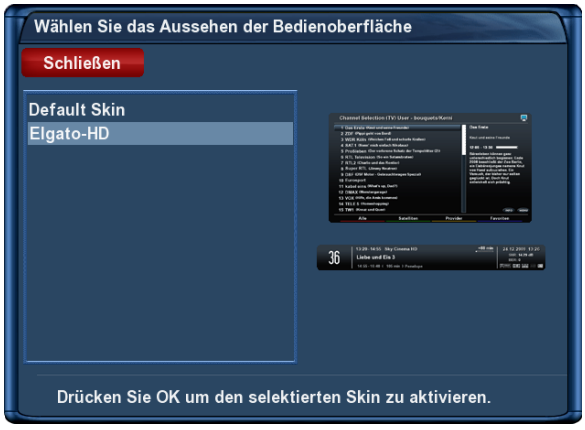
after a successful test

Restart network Reboots the network configuration of your Dreambox.

Network Wizard The network wizard will assist you with the setup of you network.

6.7 Skin

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"System"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Skin"* and press the **OK-Button**.



Skin Selection

The name of the default skin is *"Default Skin"*.

With the **Navigation-Buttons** (▲▼) choose your desired skin and press the **OK-Button**.

To fully activate the skin the system needs to be restarted. Use the **Navigation-Buttons** (▲▼) to select your desired option and press the OK-Button.

6.8 Factory reset

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Factory Reset"* and press the **OK-Button**.

You will be asked if you really want to reset all your settings to the factory defaults. If you select *"yes"* all your settings and bouquets will be lost. Afterwards your Dreambox will be restarted automatically.

Chapter 7

Service searching

In this chapter you will learn how to setup the tunerconfiguration for the reception with a satellite-dish (DVB-S/S2), via cable television (DVB-C) or via digital terrestrial television (DVB-T) in your dreambox and how to perform a service scan.

7.1 DVB-S2 Tuner-Configuration

7.1.1 Single satellite – direct connection

Use this type of configuration if you want to receive a single satellite with a Single Universal LNB. The coax cable is directly connected from your Dreambox to the LNB.

Single satellite – direct connection

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"DVB-S2 Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"Mode"*.

7. With the **Navigation-Buttons** (◄►) choose the option *"Single"*.
8. With the **Navigation-Buttons** (▲▼) choose the option *"Satellite"*.
9. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
10. Press the **OK-Button** to save this settings.

You are taken back to the *"Choose tuner"* menu.

If you have trouble with *"Tune failed"* messages please set the *"Send DiSEqC only on sattelite change"* to *"yes"*.

7.1.2 Two satellites via Toneburst A/B

Use this type of configuration if you want to receive two satellites from one LNB each. It does not matter if you use one or two dishes to achieve this. Connect the two coax cables form the two LNBs to a so-called Toneburst switch and connect the coax cable from the Toneburst switch to your Dreambox.

Two satellites via Toneburst

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"DVB-S2 Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"Mode"*.
7. With the **Navigation-Buttons** (◄►) choose the option *"Toneburst A/B"*.
8. With the **Navigation-Buttons** (▲▼) choose the option *"Port A"*.

9. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
10. With the **Navigation-Buttons** (▲▼) choose the option *"Port B"*.
11. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
12. Press the **OK-Button** to save this settings.

Make sure you know which satellite is connected to which input on the Toneburst switch. If you do not find any services in the transponder scan later, exchange the two satellites in this list and try again.

7.1.3 Two satellites via DiSEqC A/B

Use this type of configuration if you want to receive two satellites from one Twin Universal or Quad Universal LNB. It does not matter if you use one or two dishes to achieve this.

In this case the LNBs are connected to a so-called Multiswitch from which the signal is via coax cabled to the satellite receivers (Dreamboxes) in your household.

Two satellites via DiSEqC A/B

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"DVB-S2 Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"Mode"*.
7. With the **Navigation-Buttons** (◄►) choose the option *"DiSEqC A/B"*.
8. With the **Navigation-Buttons** (▲▼) choose the option *"Port A"*.

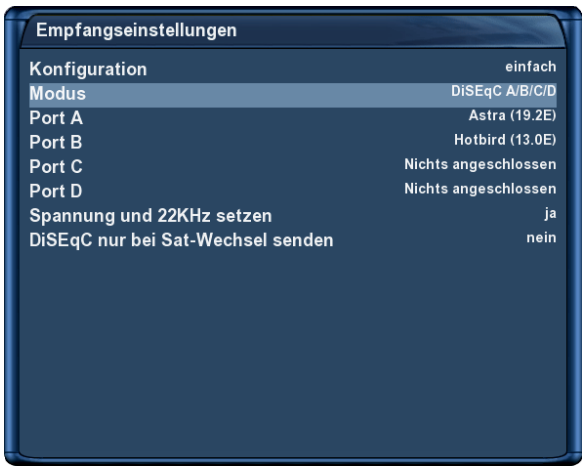
9. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
10. With the **Navigation-Buttons** (▲▼) choose the option *"Port B"*.
11. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
12. Press the **OK-Button** to save this settings.

Make sure you know which satellite is connected to which input on the Toneburst switch. If you do not find any services in the transponder scan later, exchange the two satellites in this list and try again.

If you have trouble with *"Tune failed"* messages please set the *"Send DiSEqC only on sattelite change"* and *"Set voltage and 22KHz"* to *"yes"*.

7.1.4 Four satellites via DiSEqC A/B/C/D

Use this type of configuration if you want to receive four satellites from one Single Universal or Twin Universal LNB for four or eight parties. It does not matter if you use one or two dishes to achieve this.
In this case the LNBs are connected to a so-called Multiswitch from which the signal is via coax cabled to the satellite receivers (Dreamboxes) in your household.



Four satellites via DiSEqC A/B/C/D

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"DVB-S2 Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"Mode"*.

7. With the **Navigation-Buttons** (◄►) choose the option *"DiSEqC A/B/C/D"*.
8. With the **Navigation-Buttons** (▲▼) choose the option *"Port A"*.
9. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
10. With the **Navigation-Buttons** (▲▼) choose the option *"Port B"*.
11. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
12. WäWith the **Navigation-Buttons** (▲▼) choose the option *"Port C"*.
13. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
14. With the **Navigation-Buttons** (▲▼) choose the option *"Port D"*.
15. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
16. Press the **OK-Button** to save this settings.

Make sure you know which satellite is connected to which input on the Toneburst switch. If you do not find any services in the transponder scan later, exchange the mentioned satellites in this list and try again.

7.1.5 Stab Positioner using USALS

Use this type of configuration if you want to receive many satellites with a Stab positioner from a Single Universal LNB. The coax cable is directly connected from you Dreambox to the LNB.

Stab Positioner using USALS

This menu is meant for a Stab positioner. You only have to enter the geographical details of your residence. At http://www.heavens-above.com you can find the coordinates of your residence.

The rest is done automatically by your Dreambox with build-in USALS. USALS is a model for calculating the position of all satellites in orbit with a margin of error less than 0.1 degrees. USALS was developed by the Stab company. Everything is done automatically and does not require any technical know-how.

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.

2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"DVB-S2 Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"Mode"*.
7. With the **Navigation-Buttons** (◄►) choose the option *"Rotor"*.
8. With the **Navigation-Buttons** (▲▼) choose the option *"Longitude"*.
9. Use the **Numbers 0-9** to enter the coordinates of your residence.
10. With the **Navigation-Buttons** (▲▼) choose the option *"Latitude"*.
11. Use the **Numbers 0-9** to enter the coordinates of your residence.
12. Press the **OK-Button** to save this settings.

7.1.6 Stab Positioner without USALS

Use this type of configuration if you want to receive many satellites without a Stab positioner from a Single Universal LNB. The coax cable is directly connected from you Dreambox to the LNB.

Stab Positioner without USALS

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.

4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the option *"DVB-S2 Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (▲▼) choose the option *"Configuration"*.
7. With the **Navigation-Buttons** (◄►) choose the option *"Extended"*.
8. With the **Navigation-Buttons** (▲▼) choose the option *"Satellite"*.
9. With the **Navigation-Buttons** (◄►) choose the desired Satellite.
10. With the **Navigation-Buttons** (▲▼) choose the option *"LNB"*.
11. Press the **Navigation-Buttons** (►)
12. With the **Navigation-Buttons** (▲▼) choose the option *"DiSEqC-Modus"*.
13. With the **Navigation-Buttons** (◄►) choose the option *"1.2"*.
14. With the **Navigation-Buttons** (▲▼) choose the option *"Use usals for this sat"*.
15. With the **Navigation-Buttons** (◄►) choose the option *"No"*.
16. With the **Navigation-Buttons** (▲▼) choose the option *"Stored position"*.
17. Enter position of the selected satellite which is saved in the positioner by using the **Numeric Keypad**. Refer to the instruction manual or your positioner for the number of the saved position.
18. Press the **OK-Button** to save this settings.

7.2 DVB-C Tuner configuration

DVB-C Tuner configuration

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.

3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.

4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.

5. With the **Navigation-Buttons** (▲▼) choose the *"DVB-C Tuner"* and press the **OK-Button**.

Frequency bands

This type of searching scans the frequencies used by most cable providers. This setting is the default.

1. With the **Navigation-Buttons** (▲▼) choose the option *"Used service scan type"*.

2. With the **Navigation-Buttons** (◄►) choose the option *"Frequency bands"*.

3. Press the **OK-Button** to save this settings.

Frequency steps

This type of searching scans the set frequencies step by step in a set increment.

1. With the **Navigation-Buttons** (▲▼) choose the option *"Used service scan type"*.

2. With the **Navigation-Buttons** (◄►) choose the option *"Frequency Steps"*.

3. With the **Navigation-Buttons** (▲▼) choose the option *"Frequency scan step size (kHz)"*.

4. Use the **Numeric-Keypad** to set the step increment.

5. Press the **OK-Button** to save this settings.

7.3 DVB-T Tuner-Configuration

DVB-T Tuner-Configuration

Follow this steps:

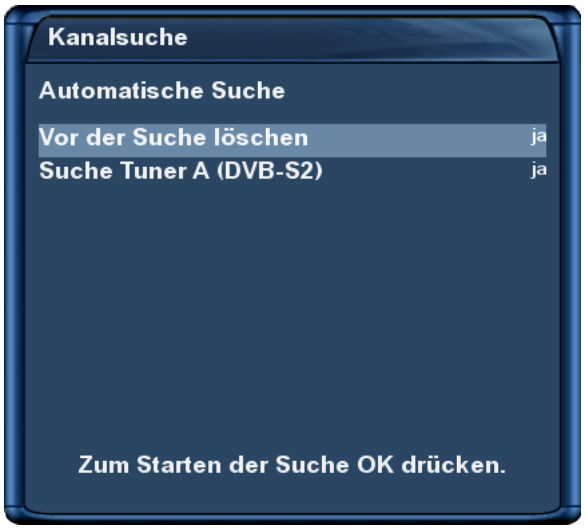
1. Press the **Menu-Button** to open the main OSD menu.

2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Tuner configuration"* and press the **OK-Button**.
5. With the **Navigation-Buttons** (▲▼) choose the *"DVB-T Tuner"* and press the **OK-Button**.
6. With the **Navigation-Buttons** (◄►) choose your region.
7. If you have connected an active antenna and you want to run the antenna without it's original power supply set the *"Enable 5V for active antenna"* option to *"On"*.
8. Press the **OK-Button** to save this settings.

7.4 Automatic scan

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Automatic scan"* and press the **OK-Button**.
5. Set all tuners with which you want to search to *"yes"*. Use the **Navigation-Buttons** (▲▼) choose the tuner and the **Navigation-Buttons** (◄►) to switch to *"yes"*.
6. Press the **OK-Button** to start the scan.

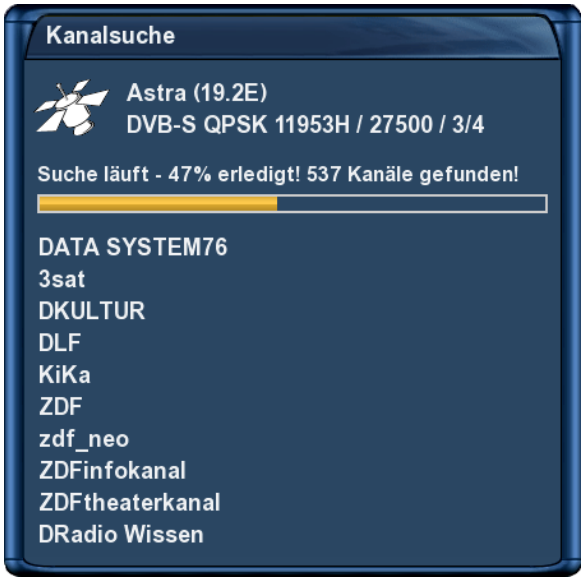


Automatic scan

Use the **Navigation-Buttons** (▲▼◄►) to set the *"Clear before scan"* option to *"Yes"* if you want to delete all services before the scan starts. Otherwise leave the setting to *"No"* which results in only new services being added to the channel list. In order to find the new services, follow this steps:

1. Press the **Navigation-Buttons** (▲▼) to open the channellist.
2. Press the **green Options-Button** to access the *"Satellites"* view.
3. With the **Navigation-Buttons** (▲▼) choose the option *"New"* and press the **OK-Button**.

Now you see all new services, which were added by the scan.



You can see the progress of the scan here.

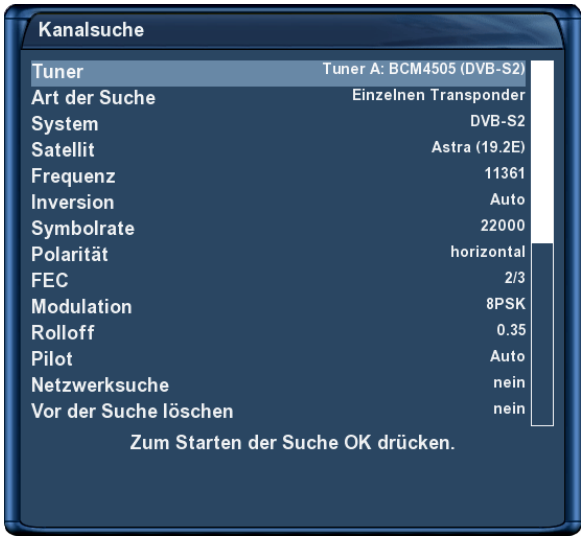
The scan is done once you see this menu. It shows how many channels were found during the scan.

Press the **OK-Button** to store the found channels or the **EXIT-Button** to cancel.

7.5 Manual scan

Follow this steps:

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Service searching"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Manual scan"* and press the **OK-Button**.



Manual scan

With the **Navigation-Buttons** (▲▼) choose the tuner on which you want to run the manual service scan. All other options can be changed by using the **Navigation-Buttons (▲▼◄►)**. Press the **OK-Button** to start the manual scan.

Chapter 8

Systeminformation

8.1 Service

This window shows detailed technical information about the current service.

Kanal-Informationen

Follow this steps:

1. Press the **MENU-Button** in order to open the main menu.
2. Navigate to the option “Information” and press the **OK-Button**.
   The “Information” menu will open up.
3. Navigate to the option “Service” and press the **OK-Button**.

Press one of the four Options-Buttons to get the following information:

red Serviceinfo

green PIDs

yellow Transponder

blue Tuner status

8.2 About (Hard- and Software)

This window shows all relevant information about the Hard- and Software of your Dreambox.

Hardware- and Software-Information

Follow this steps:

1. Press the **MENU-Button** in order to open the main menu.
2. Navigate to the option “Information” and press the **OK-Button**.
   The “Information” menu will open up.
3. Navigate to the option “About...” and press the **OK-Button**.

Chapter 9

Updating the software

9.1 Backing up your settings

Before installing newer software on your Dreambox you should backup your settings, otherwise they will be lost.

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Software management"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Backup system settings"* and press the **OK-Button**.

9.2 Restoring your settings

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Setup"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Software management"* and press the **OK-Button**.
4. With the **Navigation-Buttons** (▲▼) choose the option *"Restore system settings"* and press the **OK-Button**.

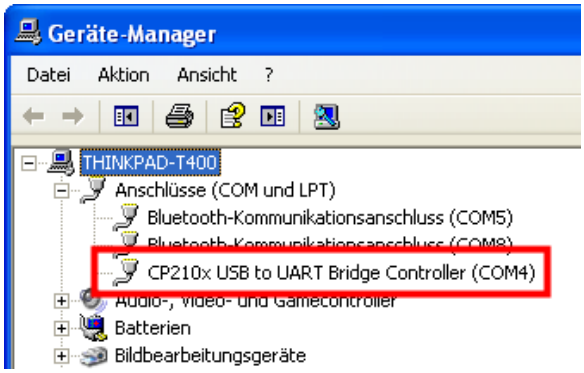
9.3 Updating a new software

9.3.1 using the DreamUP program

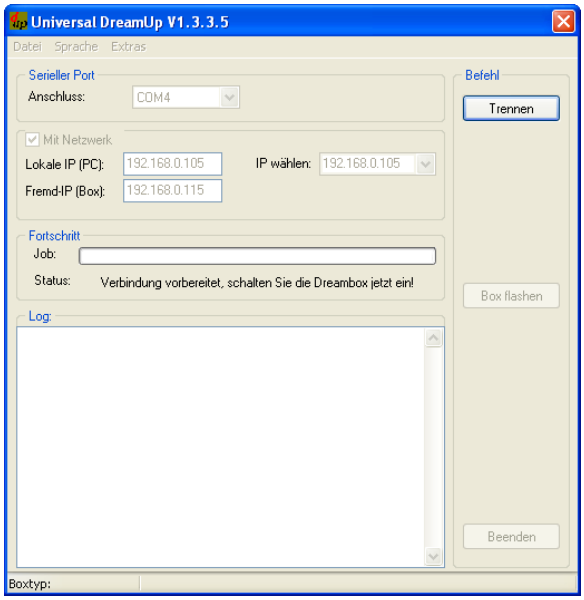
How do I install new software on my Dreambox DM800 HD se ?

Requirements:

- PC with Windows operating system
- DreamUP software (current version under http://www.dreambox.de)
- 1 mini-usb-to-usb cable
- 1 network cable (optional but recommended)

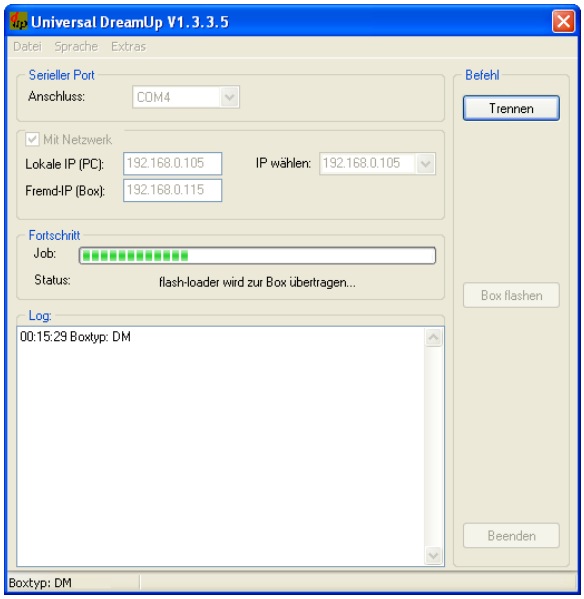


1. Firstly disconnect your Dreambox from main power.
2. Connect the mini-USB-connector of the "mini-USB-to-USB-cable" to the service-port of your dreambox and the usb-connector to your computer.
3. Your computer recognizes the dreambox as new hardware and will ask for a suitable driver. The driver can be downloaded on our website (download-section) under http://www.dreambox.de Now install the driver.
4. Open the windows device manager. In Windows XP (i.e.)you can find it this way: Click on Start, Settings, Control Panel, System, Hardware, Device Manager.
5. Click on *"Ports (COM & LPT)"* and look for the entry *"CP210x USB to UART Bridge Controller"*. Please notice which Com-Port is given on this entry, in this example: *"(COM4)"*.

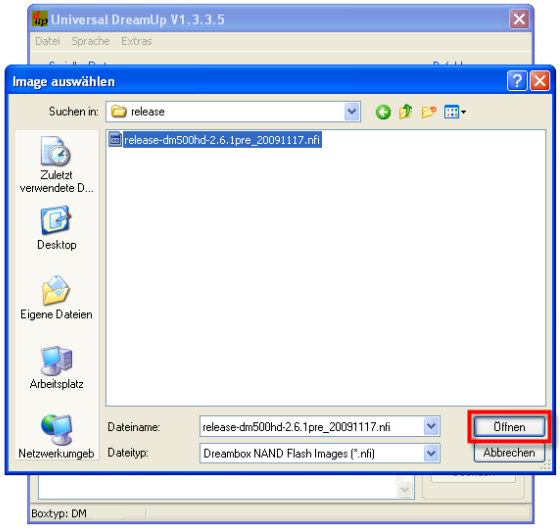


6. Start the DreamUp software on your PC.
7. Select the com-port which the "mini-USB-to-USB-cable" is connected to, as described above. In our example *"COM4"*.
8. Check the *"Use network"* box if your PC and Dreambox are connected using a network cable

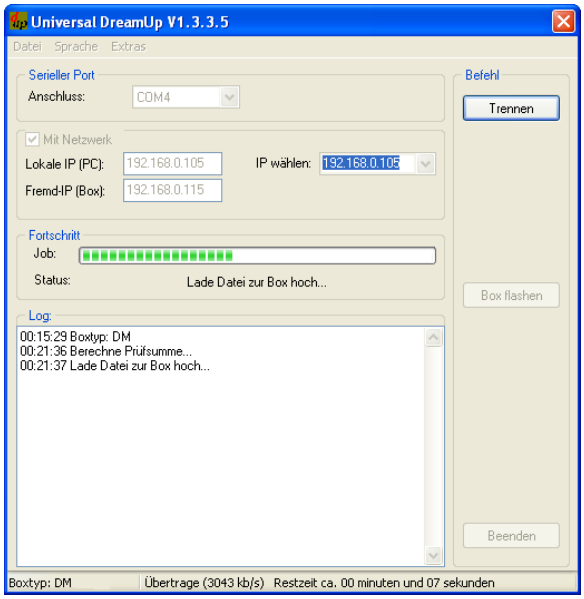
   The software update can be done without network support, but it takes at least 30 minutes.
9. Enter your PC's IP under *"Local-IP (PC)"* you're your Dreambox's IP under *"Foreign-IP (Box)"*.
10. Click on the *"Connect"* button and reconnect your Dreambox to main power.



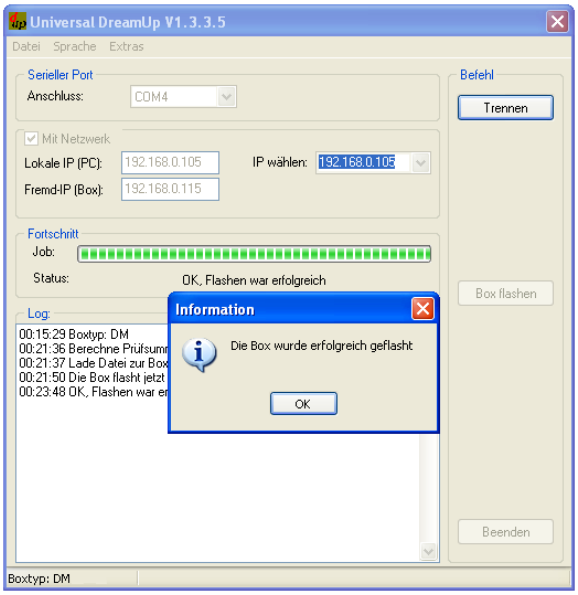
11. The flash loader will now be transferred to your Dreambox.



12. After the flash loader has been transferred to your Dreambox select the *"Flash Box"* Button in the DreamUp software.
13. Select the software image and click on the *"Open"* button.



14. The new software is now being transferred to your Dreambox.



15. If the process was successful you will get a *"Box was flashed successfully"* message.
16. Click on *"OK"* and on *"Exit"* afterwards.
17. Disconnect and reconnect your Dreambox from main power.

9.3.2 With browser

With activated DHCP server

Requirements:

- PC with browser like. Firefox, Opera, Internet Explorer
- latest Software for your Dreambox, downloadable under www.dreambox.de
- 1 networkcable
- DHCP-Server

You need the image file you want to flash (downloadable under www.dreambox.de). Image files have the extension *"*.nfi"*. You can't flash other images like *"*.img"* files. Don't try it - it won't work.

If you connect your dreambox directly to the pc you need a *"Cross-Over"* networkcable, if you connect your Dreambox to a switch/hub/router you need a (*"common"* networkcable - a so-called patchcable. To flash a new image, you can use the second stage loader. It must be present and not broken. If the box isn't booting anymore, you can only flash it via the program *DreamUP*. (see *Chapter 9.3.1 using the DreamUP program* on page 67).

The following steps assume you have a DHCP server. Usually dhcp-server is activated by default in delivery condition of your router.

If you don't have one, you have to setup an IP address in the bootloader's serial setup. (see *Chapter 9.3.2 Without DHCP-Server* on page 71).
Power down the Dreambox, either using *"shutdown"* and by switching off by the power switch. Standby is not enough!

1. Press and hold the **Power-Button** at the forntpanel.
2. Switch on your Dreambox. (Reconnect power-plug)
3. The text ****** STOP ****** should appear in the display. Now you can release the **Power-Button**. Your dreambox is now in *"Stopmode"*.
4. Above the text ****** STOP ****** should appear an ip-address now, i.e. *http://192.168.0.104*. If *"DHCP"* is still shown instead of an ip-address, the box still searches for a dhcp-server in your network. Please wait a few seconds.
   If there is no ip-address after about 30 seconds, check your dhcp-server settings and the cabling of your network. If it keeps not working you have to setup an IP address in the bootloader's serial setup. (see *Chapter 9.3.2 Without DHCP-Server* on page 71).

Now, open a browser on your PC (Firefox, Opera, Internet Explorer).

1. Enter in the address line ***"http://IP-Address"***.
   "IP-Address" has to be replaced by the ip-address shown in the display of your box.

   In our example it would look like this:
   http://192.168.0.104

2. Click on ***"firmware upgrade"*** on the given site in your Browser.

3. On the next page, you can select the flash image you want to flash. Be sure that it has the *".nfi"* extension. You can't flash other images (like .img)!

4. After you selected the desired image click on ***"FLASH!"*** and wait. It might take some time to upload and flash the image - until you see ***100%*** in your browser.

The progress bar only works with activated Javascript. Make sure that Javascript is activated in your Browser.

Switch the box off again, and on again by pressing the *"Standby-Button"*. The new image should be flashed and working.
After a few seconds the installation wizard welcomes you. (See chapter 2.3 Start wizard on page 14).

Without DHCP-Server

Requirements:

- PC with browser like. Firefox, Opera, Internet Explorer
- latest Software for your Dreambox, downloadable under www.dreambox.de
- 1 network cable
- 1 mini-usb-to-USB cable

OK, you don't have an DHCP server. That's normal if you don't have a router or configured one by yourself. You don't need to install one, but you need to connect your Dreambox by a USB cable now and start a terminalprogram like hyperterminal.

You need to know which IP to give to your Dreambox If you don't know which IP to choose, please ask someone who can help you. You can choose any IP which is "near" your PC's IP address, but the IP should not be used by any other device.

For example, if your PC's IP is 192.168.0.5 you could use 192.168.0.10, unless another device already uses that. In that case, just choose 192.168.0.11, or whatever. It just needs to be in the 192.168.0.x range, where x is >= 1 and <= 254.

Start your favourite terminal program, for example HyperTerm. Setup your Comport to 115200/8N1. Now switch on your dreambox and immediately press the "s" key.

Use the **"Arrow-Buttons"** of your keyboard to switch to the network setup menu. Using **"+"** or **"-"** you can set the "Network type" to "manual". Now you can enter an IP address in below. Press F9 to save your settings. The Dreambox will shutdown.

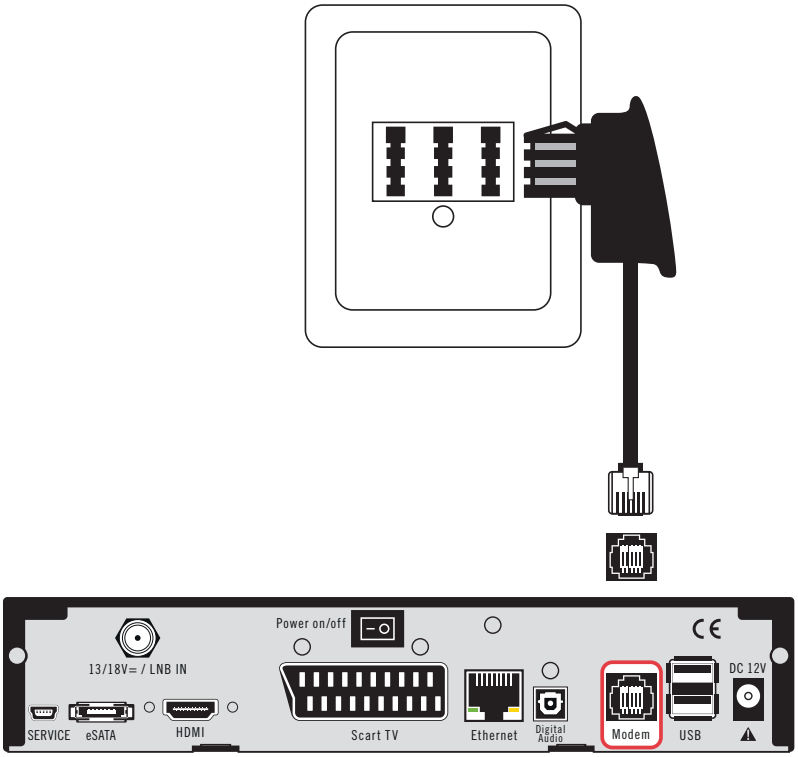
Chapter 10

Modem

If you have no option to connect your dreambox to the internet by using the ethernet port, you can also use the built in modem for this.

10.1 Connecting

You need a connection-cable which has got both middle pins of the RJ11-Plug assigned. Connect the RJ11-Plug to the modem of the dreambox and connect the other side to your telephone jack. (see figure *"Connect Modem"*)



Connect Modem

10.2 Establishing a connection

For connecting to the internet by modem, you need to enter your login-data (username, password and phone-number) of your provider first.

Follow this steps:

Enter login-data

1. Press the **Menu-Button** to open the main OSD menu.
2. With the **Navigation-Buttons** (▲▼) choose the option *"Plugins"* and press the **OK-Button**.
3. With the **Navigation-Buttons** (▲▼) choose the option *"Modem"* and press the **OK-Button**.
4. By using the **Numeric-Keypad** enter your **username**, the **password** and the **phonenumber**.
5. Press the **green Options-Button** for establishing a connection.

Dial-up...

Now you can use all functions which need a connection to the internet!

Chapter 11

Troubleshooting

Problem	Possible cause	Solution
No audio, no video, OLED-Display lit	Faulty wiring	Check wiring and connections
	Faulty LNB	Exchange LNB
	Wrong Tuner setting	Review settings (see *Punkt 7.1 DVB-S2 Tuner-Configuration on page 52*)
	Dish aligned incorrectly	Realign dish
Beamlike blackouts in the video	Heavy rain or snow	Remove snow from dish
	Dish aligned incorrectly	Realign dish
	Dish is too small	Install larger dish
	An obstacle between dish and satellite (e.g. house or tree)	Reposition dish so it has a clear "view" towards the satellite
No reception on a channel that was working before	Dish aligned incorrectly or faulty	Check dish
	Channel is transmitted in a new slot	Start service scan (see chapter 11)
	The transmission of the channel was terminated	———
You cannot record anything anymore	Hard disk is full	Delete no longer needed recordings
Remote control is not working	Batteries are inserted incorrectly	Remove batteries and check polarity
	Batteries are empty	Insert new batteries
	Wrong remote control mode (Dream-Mode, TV-Mode)	Press Dream-Mode or TV-Mode button
	Software is not reacting	Reboot Dreambox
Dreambox does not react	Dreambox is locked up	Reboot Dreambox

Chapter 12

TV-Mode setup

With the Dreambox remote control you have the possibility to control the dreambox and your tv device with only one remote control. In order that your tv device reacts to the signals of the remote control, you have to program it before. Therefore a 3-digit Code from our tv code list has to be chosen and entered.

The most recent device list can be found in the download center on our website.

www.dreambox.de

Programming the remote control

1. Press the **TV-Mode-Button** once.
2. Press the **SHIFT/Setup-Button** for 3 seconds, the **TV-Mode-Button** will flash twice.
3. Use the **Numeric-Keypad** to enter the 3-digit Code into the remote control. The TV-Mode-Button will flash once for every digit you enter. Once you have entered the 3rd digit the TV-Mode-Button will flash twice. The remote control exits the programming mode automatically.

If no code is entered within 10 seconds the remote control will exit the programming mode automatically.

4. Now press the Mute- or Volume Button in order to check if the tv device responds to the just entered code. If there is no response, please try it with the next code from the list, according to the steps above.

Chapter 13

Technical data

- 400 MHz MIPS Prozessor
- Linux operating system
- colored OLED display
- MPEG2 / H.264 Hardware decoding (DVB compliant)
- Tunervariations: DVB-S/S2, DVB-C, DVB-T
- Tuner Module, Plug&Play
- 2x Smartcard-Reader (Dreamcrypt CA)
- Mini-USB Service-Port
- 10/100 Mbit compatible Ethernet Interface
- 1 x Scart-Output (RGB, FBAS or S-Video)
- HDMI
- 2x USB 2.0 port
- Analog Modem
- S/P-DIF optical digital audio out
- 64 MByte Flash
- 256 MByte RAM
- Internal SATA Connector: Support for all regular hard disks (2,5" SATA)
- eSATA connector
- External 12V power supply
- EPG-Support (Electronic Program Guide)
- Integrated Teletext
- Support for DiSEqC™ 1.0/1.1/1.2 and USALS
- Multi-Language OSD

Additional info:

DBS-Tuner with DVB-S2:
Frequency Range 950 .... 2150 MHz
Demodulation DVB-S (QPSK); DVB-S2 ((8PSK,QPSK)
Symbol rate DVB-S: 2 ... 45 Mbaud/s, SCPC/ MCPC
DVB-S2: 10 – 31 Mbaud/s (8PSK) , 10 –30 Mbaud/s (QPSK)

DVB/C-Tuner (plugable): Input/Loop through Connector IEC 169-24, Female
Frequency Range 50 - 870 MHz
Signal Level Input -20 - 25dBm
Demodulation QAM
Constellation 16, 32, 64, 128 and 256 QAM
Input Symbol Rate 7.252 Msps max.

DVB/T-Tuner (plugable):
Input/Loop through Connector: IEC 169-24, Female/Male
Frequency Range: VHF(174 230MHz), UHF(470 862MHz)
Signal Level Input: -78 - 20dBm
Serial supply: 5V, max. 100mA
Demodulation: OFDM
Carrier Mode: 2k and 8k hierarchical/non-hierarchical
Constellation: QPSK, 16 and 64 QAM
Guard Interval: 1/4, 1/8, 1/16 and 1/32

Video decoder:
Video Compression MPEG-2 and MPEG-1 compatible, H.246
Video Formats 4:3 / 16:9
Letterbox for 4:3 TV-Device

Audio decoder:
Audiokompression MPEG-1 & MPEG-2 Layer I and II, MP3
Audio Mode Dual (main/sub), Stereo
Frequency 32 kHz, 44.1 kHz, 48 kHz, 16 kHz, 22.05 kHz, 24 kHz

Output analog:
Output Level L/R 0,5 Vss on 600 Ohm
THD > 60 dB (1 kHz)
Crosstalk < -65 dB

Output digital:
Output Level 0,5 Vss on 75 Ohm
Sampled Data Filtering 32 kHz, 44.1 kHz, 48 kHz
S/PDIF-Output optical, Toslink

Output Video:
Outputlevel FBAS 1 Vss +/- 0.3 dB an 75 Ω

Video parameter:
Input Level FBAS 1 Vss +/- 0.3 dB on 75 Ohm
Teletext filter in conformity with ETS 300 472 Standard

TV-Scart:
Output: FBAS,RGB or S-Video

Mini USB service connector:
Function: Update of Firmware

Ethernet:
10/100 Mbit compatible Interface
Function: Update of Firmware

Analoge modem:
analoge modem for Internet connection

SATA-Interface:
for internal 2,5" HDD and one eSATA
eSATA-Interface

USB:
2 x USB 2.0 Host

LNB power and polarisation per tuner:
LNB Current 500mA max.; short-circuit-protected
LNB Voltage vertical < 14V no load, > 11,5V at 400mA
LNB Voltage horizontal < 20V no load, > 17,3V at 400mA
LNB-Shutdown in Standby-Mode

Count of active satellite position:
DiSEqC™ 1.0/1.1/1.2 and USALS (Rotor Control)

OLED-Display:
The colored OLED display has an expected lifetime up to 55.000 Stunden at 50% brightness and 25°C ambient temperature.

Power consumption:
< 15W an 12V

Input voltage:
External PSU:Input:
110-240V AC / 50-60Hz / 0,6A
Output:
12V = / 3,0A

Physical specification:
Ambient Temperature +15°C...+35°C
Humidity < 80Size (W x D x H): 225 mm x 145 mm x 52 mm

Weight: 940 g without HDD

Chapter 14

Features

- Single-EPG (Electronic Program Guide): sortable by date or alphabetically
- Automatic search for additional air dates of a show and easy recording them by timer
- Multi-EPG: graphically and text-based
- Timeshift
- List of recordings: sortable by date or alphabetically and free choice of different views
- Timer programming manually or by EPG
- Individually configurable timers, e.g. single or recurring timers
- DiSEqC™ 1.0/1.1/1.2 and USALS
- Channel change in less than a second
- Start wizard for initial setup
- Pre-installed service list for DVB-S
- unlimited channellist for TV/Radio
- Support of favorite lists
- full automatic channel scan
- DVB/Teletext subtitle
- Integrated Teletext with level 2.5 support
- Radiotext / RaSS (Infos at www.rass.tv)
- Parental control
- Sleeptimer
- Easy expansion of the base function with the use of Plugins
- Remote controllable via Web-Interface and streaming of the TV-/Radio stations to any PC connected to the Dreambox through network
- mp3 playback
- Skinable OSD in many languages

Chapter 15

Contact & Support Information

Headquarter & Distribution:

Dream-Multimedia GmbH
Pierbusch 24-26
44536 Lünen
Germany

Dealer's Hotline: (Dealers only)
Tel.: +49 (0)180 - 3 44 11 30 992
Fax: +49 (0)180 - 3 44 11 30 993

You can reach the dealer's hotline from:
Mo - Fr. 09:00 am - 12:00 pm and 01:00 pm - 03:00 pm

Technical Hotline:
Tel.: +49 (0)180 - 3 44 11 30 990
Fax: +49 (0)180 - 3 44 11 30 991

You can reach the technical hotline from:
Mo - Fr. 09:00 am - 12:00 pm and 01:00 pm - 03:00 pm

Sales:
Tel.: +49 (0)180 - 3 44 11 30 994
Fax: +49 (0)180 - 3 44 11 30 995

You can reach the sales hotline from:
Mo - Fr. 09:00 am - 12:00 pm and 01:00 pm - 05:00 pm

Dealers & Pricing:
E-Mail: info@dream-multimedia-tv.de

Technical Support:
E-Mail: support@dream-multimedia-tv.de

Website:
Weblink: http://www.dreambox.de

Support Forum:
Weblink: http://www.dreambox.de/board

Software Support (actual images):
Weblink DM800 HD se: http://www.dm800.de

Chapter 16

Copyright notes

©Dream-Multimedia 2011. All rights reserved.

This product contains files that are distributed under different licenses, especially a Open Source License, the GNU General Public License. You can find details about this License on the next three pages. Additional notes about the source code and patches under The GPL license can be found on the internet under this link:
http://www.dream-multimedia-tv.de/deutsch/downloads.php

16.1 GNU GPL (General Public License)

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991
Copyright (C) 1989, 1991 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software–to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "‘Program"’, below, refers to any such program or work, and a "‘work based on the Program"’ means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "‘modification"’.) Each licensee is addressed as "‘you"’.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.
3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for non commercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)
The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.
If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.
4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.
If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.
It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.
This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.
8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.
Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "'any later version"', you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.
10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.
NO WARRANTY
11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT

HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "'AS IS"' WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS